

GUIDELINES ON CONCEPTS AND DEFINITIONS

ARTICLE 12 OF DIRECTIVE 2009/147/EC

Reporting period 2019–2024



These guidelines have been compiled by the European Environment Agency (EEA) and its European Topic Centre on Biological Diversity (ETC/BD) and subsequent European Topic Centre on Biodiversity and Ecosystems (ETC BE) and N2K Group EEIG. They have been developed through a collaborative work of the Expert Group on Reporting under the Nature Directives, its ad-hoc groups, the Expert Group on the Birds and the Habitats Directives (NADEG) and the Ornithological Committee.

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1. INTRODUCTION

Article 12 of Directive 2009/147/EC (the ‘Birds Directive’) requires Member States to forward regularly to the Commission a report on the implementation of national measures taken under the Directive, and the main impacts of these measures. This report should be made available to the public, and should include, in particular, information concerning the status and trends of wild bird species protected by the Directive, the threats and pressures on them, the conservation measures taken for them, and the contribution of the network of Special Protection Areas to the objectives laid out in Article 2 of the Directive.

Until 2008, reporting under Article 12 primarily reflected the legal transposition and technical implementation on the national level. In early 2008, however, it was agreed to start exploring a new system of bird reporting within the Expert Group on Reporting under the Nature Directives, which would improve the quality of reporting and deliver data on the actual status and trends of bird populations, similar to reporting under Article 17 of Council Directive 92/43/EEC (the ‘Habitats Directive’). This included a change from a three-year to a six-year reporting cycle, synchronised with reporting under Article 17 of the Habitats Directive, so that information would be available at the same moment and can give strong input to the overall biodiversity debate.

The new approach to Article 12 reporting was developed jointly by Member States, the Commission and contracted experts, and the new format was used for the first time in the reporting round 2008–2012. This format included information on the size and trend of individual bird species’ populations and distributions, sections for reporting on the main pressures and threats affecting species for which Special Protection Areas (SPAs) have been classified, as well as their coverage by the SPA network and conservation measures. After this first round a review of the format and guidelines took place, which led to an improved reporting format used for the 2013–2018 round. A similar process took place after the reporting period 2013–2018.

Article 12 of the Birds Directive was amended and largely aligned with Article 17 reporting under the Regulation (EU) 2019/1010 of 5 June 2019. The Commission, by means of implementing act, established the format of the report¹. The format of that report is aligned with the format of the report referred to in Article 17(1) of Directive 92/43/EEC. This implementing act was adopted in accordance with the examination procedure referred to in Article 16(1) of Directive 2009/147.

For the period 2019–2024 changes were kept to a minimum and concerned mainly the restructuring of current fields in the format. While season-level reporting was previously requested for most sections of Annex B (the ‘species reports’), two sections concerning progress with management plans and information related to Annex II species are now only requested at species/subspecies level and not at seasonal level. Additionally, several previously reported sections in Annex A (the ‘general report’) are no longer requested as a part of Article 12 reporting, as this information is available via other official

¹ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2023.091.01.0017.01.ENG&toc=OJ%3AL%3A2023%3A091%3ATOC

reporting channels (e.g. information on Natura 2000 site classification under Article 4 of the Birds Directive and measures taken in relation to approval of plans and projects).

The Commission, assisted by the European Environment Agency, should prepare and publish, every six years, a composite report based on the information provided by the Member States. That part of the draft report covering the information supplied by a Member State should be forwarded to the authorities of the Member State in question for verification. The final version of the report should be forwarded to the Member States.

Such reporting should make possible an assessment of whether the requisite measures have been taken to maintain the population of bird species referred to in Article 1 of the Directive, i.e. all species of naturally occurring birds in the wild state in the Member States' European territory, *'at a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level'*, in line with Article 2.

Box 1: How to use these guidelines

These guidelines are aimed primarily at those responsible for compiling the national Article 12 reports for the period 2019–2024 but may also be of interest to others who wish to use or to better understand the results.

The technical specifications for the data to be reported will be given in specific delivery manuals and code lists with codes for standardised entry of information in the reporting format available on the Article 12 reference portal. These delivery manuals and code lists complement the Explanatory Notes and the Guidelines.

Technical documents and reference lists

The Reference Portal contains documents and other material related to the information provided in the reporting format under Article 12 of the Birds Directive.

It includes:

- the reporting format for the period 2019 – 2024;
- the Explanatory Notes and the Guidelines (Explanatory notes in support to the reporting format and Guidelines on concepts and definitions);
- reference material, e.g. checklist for bird species, list of pressures and threats, list of conservation measures and the European grids (10x10 km ETRS) used for mapping the distribution;
- examples illustrating the guidance provided in these Explanatory Notes and Guidelines;
- guidance documents and IT applications (e.g. range tool) for preparing and delivering the reporting dataset

Content of the Article 12 report

The report under Article 12 of the Birds Directive mainly provides information on bird status and trends. It has two parts:

- A. A general reporting format, where some general progress reporting is retained but in a simplified manner, including basic facts and web links to other sources for detailed information about, for example, legal transpositions and research or work done for the protection, management and use of bird populations. Textual reporting is kept to a minimum.
- B. A format for reporting on the size and trend of individual bird species' populations and distributions, including sections for reporting on the main pressures and threats affecting – and conservation measures taken for – species for which SPAs have been classified and certain other key taxa, as well as coverage of the former by the SPA network.

Box 2: How is the information on bird status and trends used?

Regular reporting is an obligation under Article 12 of the Birds Directive. It is essential that the reports from Member States are harmonised, otherwise it is not possible to aggregate reports to produce a Composite Report for the EU as required by the Directive.

The information in Member States' reports can feed into an EU-wide assessment of the population status and trends of birds.

Link with other biodiversity assessments

The European Union (EU28) Red List assessments in the latest European Red List of Birds² were largely based on data reported by Member States as a part of their Article 12 reports for the period 2013–2018. The Article 12 data were also used for broader assessments of European Red List status, which form part of the same publication.

Data reported under Article 12 were used to update many of the population size and trend estimates in the assessment of the conservation status of AEWA species/populations. The status of AEWA species/populations is assessed regularly as part of the Conservation Status report, presented to the Meeting of the Parties (MOP). The eight edition of the report (CSR8) was prepared for MOP8 in 2022.

This section provides complementary information to the guidance provided in the 'Explanatory Notes in support to the Reporting Format'.

2.1 Reporting on subspecific units

In most cases, Annex B bird species' status and trends reports ('species reports') are requested at the level of the species, as this is the taxonomic unit referred to throughout the text of the Directive³, as

² <https://www.birdlife.org/wp-content/uploads/2021/10/BirdLife-European-Red-List-of-Birds-2021.pdf>

³ Including Article 2, for example.

well as that used for previous assessments of the EU population status of birds⁴. However, in a minority of cases, species reports are requested for ‘subspecific units’ – i.e. subspecies or distinct populations – whose status is of particular interest and/or policy relevance (e.g. in the context of subspecies-level listings in the Annexes of the Directive).

For the 2019–2024 reporting period, subspecific reporting is requested for the following taxa:

- subspecies identified in Annex I, II or III of the Directive (plus their non-Annex counterparts⁵);
- subspecies or distinct populations for which multilateral Species Action Plans, Management Plans or Brief Management Statements have been, or are being, prepared (plus their counterparts);
- subspecies or distinct populations listed in table 1 – and their counterparts – which occur concurrently (within the same season) in one or more Member States, but are readily distinguishable (plus four additional taxa for which subspecific reporting was also recommended by the AEWA Secretariat⁶);
- introduced subspecies or widespread feral forms of species which also occur naturally within the EU (plus their native counterparts);
- geographically isolated and/or evolutionarily distinct subspecies where all relevant Member States proposed subspecific reporting.

The 72 subspecific units meeting these criteria are listed in table 1. The subspecific units are also available in the species checklist on the Reference Portal.

Table 1: Subspecific units for reporting for the period 2019–2024 (more detailed information and possible updates of this table can be found on the Reference Portal).

Subspecific unit
<i>Alectoris graeca whitakeri</i>
<i>Alectoris graeca</i> all others ⁷
<i>Francolinus francolinus asiae</i>
<i>Francolinus francolinus francolinus</i>
<i>Perdix perdix italica</i>
<i>Perdix perdix hispaniensis</i>
<i>Perdix perdix</i> all others
<i>Lagopus lagopus lagopus</i>

⁴ For example, BirdLife International (2004) *Birds in the European Union: a status assessment*. BirdLife International, Wageningen, the Netherlands, and the population status assessments produced in 2015 and 2020, based on the Article 12 reports submitted for the last two reporting rounds.

⁵ Typically identified with the inclusion of “all others” at the end of their taxon name – e.g. “*Accipiter nisus* all others”, representing all subspecies of *Accipiter nisus* other than (Annex-I-listed) *Accipiter nisus granti*.

⁶ *Phalacrocorax carbo carbo*, *Phalacrocorax carbo sinensis* and two distinct flyway populations of *Ciconia ciconia*.

⁷ Includes subspecies *graeca* and *saxatilis* (neither of which has a BMS or MP).

Subspecific unit
<i>Lagopus lagopus hibernica</i>
<i>Lagopus lagopus rossica</i>
<i>Lagopus muta pyrenaica</i>
<i>Lagopus muta helvetica</i>
<i>Lagopus muta</i> all others ⁸
<i>Tetrao urogallus aquitanicus</i>
<i>Tetrao urogallus cantabricus</i>
<i>Tetrao urogallus</i> all others
<i>Lyrurus tetrix tetrix</i> ⁹
<i>Cygnus columbianus bewickii</i>
<i>Branta bernicla hrota</i> [Canada & Greenland/Ireland]
<i>Branta bernicla hrota</i> [Svalbard/Denmark & UK]
<i>Branta bernicla bernicla</i>
<i>Branta leucopsis</i> [Svalbard/South-west Scotland]
<i>Branta leucopsis</i> [East Greenland/Scotland & Ireland]
<i>Branta leucopsis</i> [Russia/Germany & Netherlands]
Anser anser [North-west/South-west Europe]
Anser anser [all other populations]
<i>Anser fabalis fabalis</i>
<i>Anser fabalis rossicus</i>
<i>Anser brachyrhynchus</i> [Svalbard/North-west Europe]
<i>Anser brachyrhynchus</i> [East Greenland & Iceland/UK]
<i>Anser albifrons flavirostris</i>
<i>Anser albifrons albifrons</i>
<i>Columba livia</i> [feral populations]
<i>Columba livia</i> [wild populations]
<i>Columba palumbus azorica</i>
<i>Columba palumbus palumbus</i>
<i>Porphyrio porphyrio poliocephalus</i>
<i>Porphyrio porphyrio porphyrio</i>
<i>Ciconia ciconia</i> [Western Europe & North-west Africa/Sub-Saharan Africa]

⁸ Includes subspecies *muta* (which is not listed in Annexes).

⁹ Listed as '*Tetrao tetrix tetrix*' in Annex I

Subspecific unit
<i>Ciconia ciconia</i> [Central & Eastern Europe/Sub-Saharan Africa]
<i>Gulosus aristotelis desmarestii</i> ¹⁰
<i>Gulosus aristotelis aristotelis</i> ¹¹
<i>Phalacrocorax carbo carbo</i>
<i>Phalacrocorax carbo sinensis</i>
<i>Numenius arquata arquata</i>
<i>Numenius arquata orientalis</i>
<i>Limosa limosa limosa</i> [Western Europe/North-west & West Africa]
<i>Limosa limosa limosa</i> [Eastern Europe/Central & Eastern Africa]
<i>Limosa limosa islandica</i>
<i>Limosa limosa</i> [all non-breeding populations]
<i>Calidris alpina schinzii</i> [Baltic/South-west Europe & North-west Africa]
<i>Calidris alpina schinzii</i> [Britain & Ireland/South-west Europe & North-west Africa]
<i>Calidris alpina alpina</i>
<i>Calidris alpina</i> [all non-breeding populations]
<i>Larus fuscus fuscus</i>
<i>Larus fuscus</i> all others
<i>Uria aalge ibericus</i>
<i>Uria aalge</i> all others ¹²
<i>Accipiter nisus granti</i>
<i>Accipiter nisus</i> all others
<i>Accipiter gentilis arrigonii</i>
<i>Accipiter gentilis</i> all others
<i>Dendrocopos major canariensis</i>
<i>Dendrocopos major thanneri</i>
<i>Dendrocopos major</i> all others
<i>Periparus ater cypriotes</i> ¹³
<i>Periparus ater</i> all others
<i>Troglodytes troglodytes</i> all others ¹⁴

¹⁰ Listed as '*Phalacrocorax aristotelis desmarestii*' in Annex I.

¹¹ Formerly '*Phalacrocorax aristotelis aristotelis*'.

¹² Includes subspecies *aalge* and *albionis* (neither of which is listed in Annexes).

¹³ Listed as '*Parus ater cypriotes*' in Annex I

¹⁴ Non-Annex 'counterpart' of *Troglodytes troglodytes fridariensis* (listed in Annex I, but no longer present in EU).

Subspecific unit
<i>Certhia brachydactyla dorotheae</i>
<i>Certhia brachydactyla</i> all others
<i>Fringilla coelebs ombriosa</i>
<i>Fringilla coelebs</i> all others

Box 3: Links between Article 12 reporting and the assessment of the conservation status under the African-Eurasian Waterbird Agreement (AEWA)

The conservation status of AEWA species/populations within the Agreement area is assessed for each Meeting of the Parties (MOP) as part of the *Conservation Status Report*, the eighth edition of which (*CSR8*) was prepared for MOP8 by Wetlands International (under contract to the AEWA Secretariat)¹⁵. Although data reported under Article 12 were used to update many of the population size and trend estimates in *CSR8*¹⁶, other sources of information were also used. During past consultations on the Article 12 species checklist, concerns were raised by Member States about the potential impact on the information required for reporting on and assessing the status of AEWA populations, particularly priority populations listed in Column A of Table 1 of Annex 3 of the Agreement (i.e. the AEWA Action Plan)¹⁷.

In practice, most national species-level data reported under Article 12 can be reliably allocated to a single AEWA population because: only one AEWA population (and/or subspecies) occurs regularly in the EU; the AEWA populations in the EU are geographically disjunct and easily separable by Member State; or the AEWA populations in the EU are contiguous (or slightly overlapping), but still separable by Member State within the relevant season. To minimise the reporting burden, remove redundancy and keep nomenclature simple, while still facilitating the assessment of priority AEWA populations, the use of subspecific units has been limited to instances where two or more AEWA populations, including at least one listed in Column A of Table 1, occur – and are distinguishable – within the same Member State in the relevant season.

2.2 Hybrids

In general, hybrids – i.e. the offspring resulting from interbreeding between different species – should not be included in the population size estimates for either parent species (at least when they are clearly distinguishable from ‘pure’ individuals¹⁸). In most cases, their exclusion will have little impact on the overall population size reported for the species in question, but in instances where the total number of hybrid individuals is significant compared to the size of the pure-bred populations, Member States

¹⁵ See https://www.unep-aewa.org/sites/default/files/document/aewa_mop8_19_csr8.pdf

¹⁶ Which relate to the entire Agreement area, not just the EU.

¹⁷ https://www.unep-aewa.org/sites/default/files/basic_page_documents/agreement_text_english_final.pdf

¹⁸ Some hybrids, particularly second- and subsequent generation individuals, may be undiagnosable in the field and distinguishable only in the hand or through DNA analysis, for example.

may wish to provide further details, in field 3.7 Additional information and/or Section 7 if hybridisation is believed to represent a threat to one or both species.

Pure-bred adults that pair/breed with individuals of another species should, however, ideally be included in the population size estimate for the relevant species, as they could potentially still contribute to the reproductive success of the species if, for example, they re-pair with a conspecific in the future. In instances where these individuals represent a significant component of the national breeding population, they should be treated as half a pair for the purposes of reporting the overall breeding population size (e.g. five conspecific pairs plus two pure-bred individuals in mixed-species pairs could be reported as 5–6 pairs).

In the case of intergradation – i.e. interbreeding between different subspecies – all resulting ‘intergrades’ should be included in the population size estimates for the relevant taxa, either at the species level (if neither subspecies is listed for subspecific reporting) or for one of the relevant subspecies (if subspecific-level reporting is requested).

2.3 Wintering species

Although species reports are requested for all regularly occurring breeding species, the reporting requirements for species occurring during the Winter season are slightly more complicated. In general, assessment of the EU population status of species is based primarily on breeding-season data, as most monitoring schemes involve fieldwork during the breeding season, when species can be at their most conspicuous (owing to song or other nuptial/territorial behaviours). For many largely-resident species, monitoring data from other times of the year may not be as readily available, nor as comprehensive or robust, and hence – in terms of the EU-level population status assessments, at least – provide little ‘added-value’ to the breeding-season data.

However, for migratory species that either do not breed within the EU or are significantly more abundant here in winter, and for species that congregate in large numbers at a relatively small number of sites¹⁹ during the winter – e.g. many waterfowl (ducks, geese and swans) and waders (or ‘shorebirds’) – monitoring data from the winter are extremely valuable when it comes to assessing their EU population status. Nevertheless, as wintering populations are often more mobile and/or can fluctuate more (e.g. in response to weather conditions and food availability) than breeding populations, international coordination of surveys – as is done for the International Waterbird Census²⁰, for example – can be particularly important during the winter, to help ensure that national (and indeed finer-scale) monitoring data can be aggregated reliably.

In the context of the above, winter population size and trend data are requested from all relevant Member States for species (or subspecific units) that:

- do not breed (regularly) within the EU, but regularly winter in one or more Member State²¹;

¹⁹ Many of which have been designated as SPAs.

²⁰ <https://iwc.wetlands.org/index.php/>

²¹ For these species, Winter-season reports are the only source of quantitative data for assessment of their EU population status and, as such, the quality of these data is of secondary concern.

- both breed and winter regularly in the EU, but are significantly more abundant in winter, with the winter population monitored across the EU in a coordinated manner²²; or
- both breed and winter regularly in the EU, but – although the wintering population is broadly comparable in size to the breeding one – may be better (or as well) monitored during winter.

The ‘key wintering’ species (or subspecific units) considered to meet these criteria are listed in table 2 and should be listed for the Winter season for all relevant Member States in the species checklist on the Reference Portal.

Table 2: Species/subspecific units for comprehensive winter reporting for the period 2019–2024 (more detailed information and possible updates of this table can be found on the Reference Portal)

Species (or subspecific unit)
<i>Oxyura leucocephala</i>
<i>Cygnus olor</i>
<i>Cygnus cygnus</i>
<i>Cygnus columbianus bewickii</i>
<i>Branta bernicla bernicla</i>
<i>Branta bernicla hrota</i> [Canada & Greenland/Ireland]
<i>Branta bernicla hrota</i> [Svalbard/Denmark & UK]
<i>Branta leucopsis</i> [East Greenland/Scotland & Ireland]
<i>Branta leucopsis</i> [Svalbard/South-west Scotland]
<i>Branta leucopsis</i> [Russia/Germany & Netherlands]
<i>Branta ruficollis</i>
<i>Anser anser</i> [North-west/South-west Europe]
<i>Anser anser</i> [all other populations]
<i>Anser fabalis fabalis</i>
<i>Anser fabalis rossicus</i>
<i>Anser brachyrhynchus</i> [Svalbard/North-west Europe]
<i>Anser brachyrhynchus</i> [East Greenland & Iceland/UK]
<i>Anser albifrons albifrons</i>
<i>Anser albifrons flavirostris</i>
<i>Anser erythropus</i>
<i>Clangula hyemalis</i>
<i>Somateria mollissima</i>

²² Some migratory species (particularly certain passerines) that are more abundant in the EU during the winter either are not monitored in winter in all relevant Member States, or the monitoring is not coordinated between Member States, and so EU-level assessment of their wintering populations is not straight-forward.

Species (or subspecific unit)
<i>Polysticta stelleri</i>
<i>Melanitta fusca</i>
<i>Melanitta nigra</i>
<i>Bucephala clangula</i>
<i>Mergellus albellus</i>
<i>Mergus merganser</i>
<i>Mergus serrator</i>
<i>Tadorna tadorna</i>
<i>Marmaronetta angustirostris</i>
<i>Netta rufina</i>
<i>Aythya ferina</i>
<i>Aythya fuligula</i>
<i>Aythya marila</i>
<i>Spatula clypeata</i>
<i>Mareca strepera</i>
<i>Mareca penelope</i>
<i>Anas platyrhynchos</i>
<i>Anas acuta</i>
<i>Anas crecca</i>
<i>Tachybaptus ruficollis</i>
<i>Podiceps grisegena</i> *
<i>Podiceps cristatus</i>
<i>Podiceps auritus</i>
<i>Podiceps nigricollis</i>
<i>Phoenicopterus roseus</i>
<i>Fulica cristata</i>
<i>Fulica atra</i>
<i>Grus grus</i>
<i>Gavia stellata</i>
<i>Gavia arctica</i>
<i>Gavia immer</i>
<i>Platalea leucorodia</i>
<i>Ardea cinerea</i> *

Species (or subspecific unit)
<i>Ardea alba</i>
<i>Egretta garzetta</i>
<i>Pelecanus crispus</i>
<i>Microcarbo pygmaeus</i>
<i>Phalacrocorax carbo carbo</i>
<i>Phalacrocorax carbo sinensis</i>
<i>Haematopus ostralegus</i>
<i>Recurvirostra avosetta</i>
<i>Pluvialis squatarola</i>
<i>Pluvialis apricaria</i>
<i>Charadrius hiaticula</i>
<i>Charadrius alexandrinus</i>
<i>Charadrius leschenaultii</i>
<i>Vanellus vanellus</i>
<i>Vanellus spinosus</i>
<i>Numenius tenuirostris</i>
<i>Numenius arquata arquata</i>
<i>Numenius arquata orientalis</i>
<i>Limosa lapponica</i>
<i>Limosa limosa</i> [all non-breeding populations]
<i>Arenaria interpres</i>
<i>Calidris canutus</i>
<i>Calidris ferruginea</i>
<i>Calidris alba</i>
<i>Calidris alpina</i> [all non-breeding populations]
<i>Calidris maritima</i>
<i>Calidris minuta</i>
<i>Scolopax rusticola</i> *
<i>Gallinago gallinago</i> *
<i>Tringa totanus</i>
<i>Larus ridibundus</i> *
<i>Larus melanocephalus</i> *
<i>Larus canus</i> *

Species (or subspecific unit)
<i>Larus argentatus</i> *
<i>Larus armenicus</i>
<i>Larus michahellis</i> *
<i>Larus glaucoides</i>
<i>Larus hyperboreus</i>
<i>Larus marinus</i> *
<i>Alle alle</i>
<i>Clanga clanga</i>
<i>Oenanthe finschii</i>

Note: '*' indicates species proposed by AEWA as additional 'key wintering' taxa for the 2019–2024 reporting period.

In addition to the 'key wintering' taxa referred to above, Winter reports are also required for (other) regularly-wintering migratory taxa listed in Annex I of the Directive and/or triggering SPA classifications nationally in winter. Although some of these may not be monitored in winter in a coordinated manner across the EU (and hence it might not be possible to aggregate national data reliably to estimate EU-level wintering population size and trends, for example), Winter-season reports still provide crucial information on, e.g., pressures/threats and conservation measures relevant in winter, plus national coverage of SPAs classified for wintering populations. If Winter reports were only submitted for such taxa by Member States in which they only occur in winter (or occupy different habitats and/or areas of the country to the breeding season)²³, the resulting Winter-season dataset would be incomplete and potentially biased towards a particular subset of Member States. In a small number of instances, a wholly sedentary population of an otherwise migratory Annex-I taxon may occur in a country, and in these cases a Winter report for the Member State is still requested, as it 'completes' the Winter dataset for the taxon in question²⁴.

Winter reports are also required for non-sedentary taxa listed in Annex II of the Directive, which may have distinct (often significantly larger) national wintering populations compared to any breeding population. In addition to the opportunity to report pressures/threats and conservation measures of particular relevance in winter, Winter reports also provide an estimate of the size (and trend) of the post-breeding 'hunnable' population, in the same units as those used to report any national hunting bags (i.e. individuals).

For all the scenarios outlined above, neither scarcity ('absolute' or relative to another season's population) nor lack of reliable monitoring data is a valid reason for excluding a regularly wintering 'key wintering' and/or migratory Annex-I/II taxon from a national checklist. In the case of (relative)

²³ As has been the case for some taxa during previous reporting rounds.

²⁴ The absence of a Winter report from the country and/or exclusion of the taxon from the country's Winter checklist leaves a gap in, e.g., the dataset on SPA coverage during the winter, with the country's Breeding-season report providing (national and) SPA-network population size estimates using breeding-season units, and focused only on reproductively-mature adult birds (not, e.g., the entire post-breeding population).

scarcity, even small wintering populations can be significant in certain circumstances²⁵, and this is best assessed at the EU (rather than national) level. In the case of non-existent or poor-quality winter monitoring data, the retention of the taxon in question in the checklist (plus submission of a Winter report with ‘unknown’ responses where necessary) allows gaps in the overall Winter dataset to be considered during EU-level analyses, as well as identification of regional priorities for future improvements in monitoring, where appropriate²⁶.

2.4 Passage species

As indicated in 2.3 ‘Wintering species’, Member States are not generally required to report on species on passage (i.e. while on migration to/from their breeding and wintering grounds), as national data on population size and trend are often difficult to obtain²⁷ and/or aggregate at the EU level without detailed supplementary information allowing the interpretation needed to consider any duplicative counting. Nevertheless, the Directive does request the implementation of various measures relevant to passage populations²⁸, and hence (simplified) Passage-season species-reports are still requested for selected migratory species for which important information would otherwise not be reported.

Recognising that collecting information on passage populations involves additional effort from Member States, Passage reports are only requested for the most policy-relevant groups of species, namely: migratory taxa listed in Annex I of the Directive; other regularly occurring migratory species triggering SPA classification nationally on passage, and; migratory species listed in Annex II of the Directive. In these cases, a Passage species-report provides important information that would not otherwise be captured elsewhere on, for example, the main pressures and threats acting during passage²⁹, national SPA coverage of the passage population, and/or any hunting bag statistics for Annex-II species occurring in the Member State in question only on passage.

As part of the review process in the lead-up to the submission of 2013–2018 reports, a ‘gap-checking’ exercise of Member States’ species checklists was carried out, aimed primarily at identifying (and filling) the most significant gaps in Passage reporting for migratory Annex-I and Annex-II taxa. In practical terms, passage populations of Annex-I or Annex-II taxa for which Member States were not already listed for the Breeding and/or Winter season were added to the national checklist. This pragmatic approach filled some of the more obvious gaps in information for passage populations of the most policy-relevant taxa³⁰, but Passage-season listings in the overall species checklist still did not

²⁵ For example, if all national populations are relatively small, and/or the trends of smaller wintering populations ‘counterbalance’ those elsewhere within the EU (e.g. as might occur with more recently-established populations towards the north-eastern margins of a climate-related range shift).

²⁶ Acknowledging that some taxa may always remain hard to monitor and/or poorly known in practice.

²⁷ Owing, for example, to the influence of weather on precise occurrence patterns, the dispersed nature of passage for ‘broad-front’ migrants, and difficulties estimating the turnover of individuals at stop-over sites.

²⁸ For example, similar measures to the “special conservation measures concerning [...] habitat” referred to in Article 4 (paragraph 1) at “staging posts along [the] migration routes” of regularly occurring migratory species (paragraph 2), with the provisions of Article 7 also often relating to birds on autumn/post-nuptial migration.

²⁹ Which may differ to those affecting any national breeding and/or wintering population(s).

³⁰ For example, the main pressures/threats and national SPA coverage for Annex-I, and any national hunting bag statistics for Annex-II, taxa only occurring in the Member States in question when on passage.

fully reflect the Passage reporting requirements outlined in the guidelines³¹, resulting in an inconsistent situation whereby some migratory taxa were reported on for the Passage season by certain Member States, but not others (despite also occurring on passage in the latter).

Preliminary attempts to address the inconsistencies mentioned above³² have not proven feasible in time for the 2019–2024 reporting round, so Passage-season reporting requirements essentially remain unchanged for the latter. Nevertheless, Member States are encouraged to bear in mind the principal aims of Passage reporting outlined above when preparing Passage reports (and indeed reviewing national checklists for potential ‘gaps’ in Passage-season listings). For example, where a national passage population includes individuals from a Member State's breeding or wintering population³³, these individuals should be considered to be part of the broader passage population / included in the Passage report if, for example, they use different sites and/or habitats on passage to during the breeding/winter season (as relevant). Equally, as Article 7(4) of the Directive indicates that migratory Annex-II species should not be hunted “during their return to their rearing grounds” (i.e. during ‘pre-nuptial’ or spring migration), the focus of Passage reports for Annex-II species should be on the autumn (‘post-nuptial’) passage population, where the species in question is also an SPA trigger on Passage or the Member State is voluntarily providing information for any of the season-specific report sections³⁴.

3 Population size and trends

This section provides complementary information to the guidance provided in the ‘Explanatory Notes in support to the Reporting Format’, including relevant information from resources previously made available as stand-alone documents on the Reference Portal.

3.1 Sources of information

There are many sources of information on birds, but not all are appropriate to assess abundance and/or trends. Information sources can be either structured or unstructured.

Structured surveys essentially allow the estimation of the total population through a standardised sampling methodology, the most usual of which is a survey based on stratified random sampling³⁵. This allows statistical techniques to be used to estimate the total size of the population from a random sample of survey plots, the frequency of which can be ‘stratified’ according to the likely densities in different types of landscape or habitat. The results give statistically robust population estimates within a range of maximum and minimum values. Randomised sample surveys can also yield robust trends in

³¹ For example, many Member States with distinct (sometimes larger) passage populations of Annex-I taxa that also breed or overwinter nationally did not have a Passage-season listing/report for the taxa in question, so no information was available on, e.g., coverage of the passage population by the national SPA network (particularly important if the sites/habitats favoured on passage differ from those used in other seasons).

³² See <https://circabc.europa.eu/ui/group/173a90fc-40bf-492d-a3a9-df99c4aa8807/library/ed19a898-0c15-4426-97bb-d90c57570630/details>

³³ As is frequently the case in larger Member States (particular those spanning a wide range of latitudes).

³⁴ Such as ‘3 Population size’ or ‘4 Population trend’.

³⁵ See, e.g., Gregory, R.D., Gibbons, D.W. & Donald, P.F. 2004. Bird census and survey techniques [online PDF of chapter]. Pp. 17–55 in Sutherland *et al.*, eds. *Bird ecology and conservation: a handbook of techniques*. Oxford University Press, Oxford, UK.

abundance and are the basis of the national surveys used within the Pan-European Common Bird Monitoring Scheme (PECBMS)³⁶.

There are various forms of unstructured surveys. Interpretation of these depends on understanding the nature of the data and the nature of the biases involved in their collection. Some examples of unstructured surveys and interpretation pitfalls include:

- National 'depository'-type schemes that collect annual records of rare breeding birds. Such schemes gather all breeding records for certain species, but the 'completeness' of derived national totals varies markedly between species. For very rare species (e.g. with only a few tens of pairs), it may be that the reported total (sum of observations) is close to the total population size. However, for species that are more abundant (hundreds to thousands), an unquantifiable proportion remain unreported, exacerbated if the species also has a cryptic breeding biology.
- Data from online data portals are subject to a range of biases, many of which are unquantifiable. More records from a particular area may simply reflect a greater number of bird recorders there, and 'effort' needs to be controlled for (although this is difficult in practice). Typically, such highly unstructured data needs considerable species-specific interpretation if it is to be used to generate population size estimates or trends.
- Some surveys are unstructured in their design but attempt to, and sometimes succeed in, achieving complete or near-complete coverage of the species (e.g. breeding seabirds or non-breeding waterbirds³⁷) or habitat type concerned. Typically, some of these surveys achieve high levels of coverage, although the inclusion of sites is not statistically determined, as it would be in a structured survey. There are various means of interpolating lacking coverage or missing sites in order to generate robust trends from such incomplete surveys³⁸ and, in combination with mapped environmental information, such counts can also be used to estimate national populations of more widely dispersed species³⁹.

Although details of the derivation of national population size and trend estimates are always valuable, Member States are particularly encouraged to explain how estimates derived from unstructured survey data were obtained (in 'Additional information' fields 3.7 and/or 4.3), not least so these methods can be reviewed, and reapplied as appropriate, for future reporting rounds.

Trend information does not always need to derive from year-on-year monitoring, which may not always be possible. It can also be determined through the comparison of two population estimates, if such estimates were derived in similar ways (and more recent knowledge does not suggest that the older estimate was significantly inaccurate). Thus, if a national population estimate was 10 000 in 2000, but only 5 000 in 2020, then the proportionate annual change in numbers over that period can be readily estimated.

³⁶ <https://pecbms.info/methods/pecbms-methods/>

³⁷ See, e.g., Hearn, R. *et al.* (2018) *Guidelines on waterbird monitoring*. AEWA Conservation Guidelines No. 9. Bonn, Germany. [\[Online PDF\]](#)

³⁸ See, e.g., Atkinson, P.W. *et al.* (2006) Identifying declines in waterbirds: The effects of missing data, population variability and count period on the interpretation of long-term survey data. *Biological Conservation*, 130: 549–559 and Nagy, S. *et al.* (2022) Towards improved population size estimates for wintering waterbirds. *Ornithologischer Beobachter*, 119: 348–361.

³⁹ See, e.g., Méndez, V. *et al.* (2015) Use of environmental stratification to derive non-breeding population estimates of dispersed waterbirds in Great Britain. *Journal for Nature Conservation*, 28: 56–66. [\[Online PDF\]](#)

3.2 Population size

Estimates of national population size are a crucial component of species reports, allowing the rest of the information reported therein to be set in a broader context⁴⁰. In most cases, at least some information on the likely size of the national/seasonal population in question is available, but Box 4 illustrates how the uncertainty that would otherwise result from an entirely absent population size estimate can be minimised, even for a relatively poorly known species.

Box 4: Example of population size reporting for species with limited data

Species A is a widespread species with regularly occurring breeding populations in all 27 Member States. However, during the reporting period 2008–2012, one Member State provided a breeding-season report for the species without any indication of breeding population size. In the absence of any reported information on the national breeding population size, the latter could in theory be just one breeding pair (in which case the data gap would not be at all significant at the EU level) or the largest breeding population of any Member State (and hence have important implications for assessment of the species' EU population status). Either way, some indication of the plausible limits of national population size (however tentative or broad) – based, e.g., on older sources of information and/or expert judgement – would be very helpful (and certainly preferable to a complete lack of reported information).

In this example, various pieces of relevant information do in fact exist, including:

- a breeding population estimate of 10 000 – 100 000 pairs from the first national breeding bird atlas (referred to in, e.g., Snow & Perrins 1998 and BirdLife/EBCC 2000);
- an updated estimate by national experts of 5 000 – 50 000 pairs in 2002 (BirdLife International 2004a);
- and an indication in the 2005 national Red List that the species had a large population (and wide distribution), and was categorised as 'Least Concern'⁴¹.

Based on the information above, the actual breeding population size in 2012 seems likely to have fallen between 4,000 and 100,000 pairs, assuming the minimum and maximum estimates from 2002 were broadly accurate, and the population had neither decreased by more than 20 %⁴², nor doubled in size, in the intervening ten years.

Even this relatively broad range of minimum and maximum estimate would have helped to clarify the importance of the national population in the EU context⁴³, but other sources of information could have refined it further. In this case, for example, a recent estimate of the size of the national breeding distribution was also available⁴⁴, and extrapolation of the range of densities derived from overall totals for breeding population size and distribution area provided by other Member States that reported both (i.e. c.0.4–0.6 pairs/km²) produces an estimate of 21 246 – 32 025 pairs, suggesting that (assuming the species' density in the Member State in question is not wholly atypical of the rest of the EU) it would probably be justifiable to 'tighten' the range of the preliminary minimum and maximum suggested above.

⁴⁰ For example, allowing assessment of whether the pressures/threats reported as acting nationally are likely to be affecting the majority or, e.g., <1 % of the overall EU population of the species in question.

⁴¹ Not meeting the threshold for the IUCN Red List category 'Near Threatened' (in the case of widespread and large populations, criterion A: decline >20 %).

⁴² The 'threshold' mentioned in the IUCN Red List guidelines (IUCN SSC 2017) for categorisation as Near Threatened under criterion A (relating to rapid population declines), for example.

⁴³ i.e. between 0.5 % and 8.2 % of the overall EU breeding population size, with the relevant geomeans suggesting a figure of around 2 %.

⁴⁴ From the breeding distribution map submitted, which was based on the second national breeding bird atlas.

Either way, a textual explanation/justification of the estimate reported (perhaps alongside a note on the need for more rigorous and/or up-to-date data) could also be provided in the relevant 'Additional information' field (3.7).

As noted earlier in Section '2.4

Passage

species', there may be instances where the 'definition' of a population (and hence the estimation of its size) is open to some interpretation, but in such cases Member States are encouraged to keep in mind the context of reporting on implementation of national provisions taken under the Directive when exercising their expert judgement. Although comparable approaches across Member States are obviously desirable in many instances, in some⁴⁵ a consistent national approach within a species report can be as, if not more, important (see e.g., Section '6

Natura

2000 (SPAs) coverage).

3.3 Trend periods

The current method for assessing the EU population status of birds⁴⁶ requires estimation of the overall population change across all Member States over the 'ideal' short- and long-term trend periods, and comparison of these estimates with threshold values for the different status categories. Ideally, national population trend data, derived from statistically robust monitoring schemes, would be available and reported for the exact periods requested, and could then 'simply' be aggregated to estimate the overall EU-level population trend. In reality, of course, this is rarely the case. Where robust trend data are not available for the ideal trend periods, it is hence necessary to either extrapolate (in the case of shorter trend periods) or truncate (in the case of longer periods) reported trends to estimate the overall EU-level trend. In both cases, assumptions have to be made about the trend data reported, which may or may not reflect the true situation, for instance, that the rate of change over the reported trend period was constant (fixed annual or cumulative) and, in the case of extrapolations, that the equivalent annual rate of change also applied during the other years 'missing' from the ideal trend period.

In general, it is preferable for Member State experts to make any such assumptions – based on their knowledge and understanding of the situation nationally – and to extrapolate or truncate available trend data to the ideal trend periods prior to reporting. Where this is not feasible, any trends that cannot be provided for the ideal trend period should at least be reported using the most 'extrapolatable' data (e.g. average or smoothed trends). These are preferable to 'raw' trends based on differences in monitoring scheme indices in a specific start and end year, which can be disproportionately affected by factors such as 'atypical' years (e.g. for weather conditions and/or food availability), and random chance effects, particularly if sample sizes are small⁴⁷.

⁴⁵ For example, a Passage report for an Annex-I taxon, where no attempt will be made to estimate the overall EU-wide population (owing to difficulties aggregating national passage population size data).

⁴⁶ See <https://circabc.europa.eu/ui/group/173a90fc-40bf-492d-a3a9-df99c4aa8807/library/cfc5a24c-b29f-43ee-a577-bad937e39033/details>

⁴⁷ See also pp. 5–6 of the discussion paper *Key issues related to the reporting and analysis of Article 12 population trends* for examples and further background (<https://circabc.europa.eu/sd/a/80570813-47ff-4b4d-9da2-7ccceb07e10a/Discussion%20paper%20on%20Art%2012%20population%20trends.pdf>).

In all the scenarios above, Member States are encouraged to provide as much relevant supplementary information as possible including in cases where extrapolation of monitoring data has been carried out by national experts, the rationale behind this, and the original non-extrapolated data (Additional information field).

In instances where trends have not been reported for all of the ideal trend period, any additional (e.g. qualitative) information that could help during the EU population status assessment should be provided: e.g. *'No quantitative data available before 1990 (when monitoring scheme started), but trend during 1980–1990 believed to be broadly stable (e.g. Tucker & Heath, 1994), and population in early 1980s estimated as 200 000–300 000 pairs (Snow & Perrins, 1998)'*.

Box 5: Use of older sources of population trend information for estimating long-term trends

The following example illustrates how older sources of population trend information might be used to complement recent monitoring data, to provide an informed estimate of the long-term direction and magnitude.

- Recent trend (from, e.g., national monitoring scheme): a 10 % increase during 2000–2024.
- Estimated trend during 1990–2000 (from *'Birds in Europe 2'*): a decline of 0–19 %.
- Estimated trend during 1970–1990 (from *Birds in Europe*⁴⁸): a decline of 20–49 %.

Assuming that the decline reported for 1970–1990 was relatively constant; the decline between 1980 and 1990 may have been in the order of c.10–24 %, giving a population index in 1990 (from a starting index of 1 in 1980) of between 0.76 and 0.9. Multiplying the 'best-case' index (0.9) by the 'best-case' trend from *'Birds in Europe 2'* (i.e. a 0 % change, or a factor of 1) and the 'worst-case' index (0.76) by the 'worst-case' trend (i.e. a 19 % decline, or factor of 0.81) suggests a population index in 2000 of between 0.62 and 0.9. Then 'applying' the recent trend, i.e. a 10 % increase (or factor of 1.1) during 2000–2024, results in an estimated population index in 2024 of between approximately 0.68 and 0.99. This represents an overall decline (i.e. both estimates lower than the starting index of 1), which might be reported (excluding the least-probable / more-extreme scenarios) as of between -5 % and -25 %, for example (taking the mid-point of the trend magnitudes reported in the two editions of *Birds in Europe* produces an estimated decline of approximately -15 %, i.e. $0.855 \times 0.905 \times 1.1 = 0.851$).

3.4 Trend categories

The criteria used to decide whether a trend should be categorised as 'stable', 'increasing', or 'decreasing' will vary depending on the type of trend information available. For species covered by statistically robust monitoring schemes, precise estimates of trend magnitude (with associated confidence limits) are often available for the short-term trend period, in which case even slight increases or decreases should be identifiable (e.g. if the confidence limits do not overlap zero). For example, if national common bird monitoring scheme data suggest an overall trend of -7 % during

⁴⁸ Or from BirdLife International / European Bird Census Council (2000) *European bird populations: estimates and trends*. BirdLife International (BirdLife Conservation Series No. 10), Cambridge, UK, in the case of non-SPEC species not covered in detail in *Birds in Europe* (see footnote in section 4.2.1 of the Explanatory Notes in support to the Reporting Format' for citation of latter).

2013–2024, with the 95 % confidence limits (-2 % and -14 %) indicating a statistically significant change, the short-term trend direction should be reported as ‘decreasing’ (with the three values for trend magnitude provided in field 4.1.3)⁴⁹, even though the most likely change is less than, for example, 10 % (see below).

However, if robust monitoring data are not available for the species and/or all of the trend period in question, trend direction categories should be allocated using a specified threshold (an overall change of 10 % over the short-term trend period) distinguishing likely increases or decreases from probable stability, with species that are believed to have changed overall by less than 10 % categorised as ‘stable’, and those that are adjudged to have increased or decreased by 10 % or more as ‘increasing’ or ‘decreasing.’ In the case of species without statistically robust trend data, any estimate of trend magnitude is most likely to exist as an expert-derived range, e.g. a -10–20 % decrease. The trend direction should not be considered ‘stable’ if expert opinion and/or various sources of (qualitative) information suggest that the real trend probably exceeds 10 % (the ‘min.’) – e.g. the trend is most likely to fall between, for instance, 10 % and 20 %.

For long-term trends, a higher threshold (of 20 %) is more appropriate, given the longer period over which trends are being assessed and the greater uncertainty implicit in many older sources of trend information. A decline of 20 % or more over the long-term trend period is also the key criterion used to categorise species as ‘Declining’ or ‘Depleted’ under the method agreed for assessing the EU population status of birds⁵⁰.

The trend category ‘fluctuating’ applies to species whose average population level did not change significantly over the trend period, but which are characterised by large interannual variations in abundance, sometimes of one or two orders of magnitude. Species that typically show such dynamics include Boreal and Arctic breeding species, such as certain owls and crossbills, whose abundance is closely linked to the availability of food that shows cyclical peaks and troughs. As such, ‘fluctuating’ is a very different trend category to ‘stable’. Indeed, species with small populations and ranges and whose numbers fluctuate are considered to be at a much higher risk of extinction than those with stable populations (IUCN, 2012)⁵¹. Member States are hence requested to restrict use of this category to species that show interannual population increases/decreases of ≥ 50 %. This includes species that, overall, are adjudged to breed or winter ‘regularly’ (e.g. more often than not), but may still not occur every year.

As ‘fluctuating’ was reported during the 2008–2012 reporting round for several species for which there was no obvious ecological reason for interannual variations, a new category – ‘uncertain’ – was added prior to the 2013–2018 round, in part to capture instances where apparent ‘fluctuations’ in monitoring indices are more likely a consequence of, for example, small sample sizes and stochastic effects, rather than a true reflection of variation in population levels. ‘Uncertain’ indicates that trend information does exist for the species in question, but monitoring data may currently be inconclusive when it comes to trend direction. It hence differs from the category ‘unknown’, which implies that no trend

⁴⁹ In general, greater precision is encouraged for short-term trends, as this level of detail could prove important when it comes to deciding the species’ final population status category (particularly in cases where this could be marginal).

⁵⁰ See document linked to from footnote 57.

⁵¹ IUCN (2012) *IUCN Red List Categories and Criteria. Version 3.1.*
<http://www.iucnredlist.org/resources/categories-and-criteria>

information, inconclusive or otherwise, currently exists for the species (and hence it may be a priority for further study).

3.5 Trend magnitudes

For the 2019–2024 reporting period, trend magnitudes should be provided for trends reported as ‘increasing’, ‘decreasing’ or ‘uncertain’, with reporting of magnitudes (where available) also encouraged for ‘stable’ and ‘fluctuating’ trends.

In theory, the direction of trend magnitudes reported for unidirectional (i.e. ‘decreasing’ and ‘increasing’) trends could still be inferred based solely on the entry in the accompanying trend direction field. However, given the need for clarity still in certain other situations, plus the benefits of a consistent approach across all trend-direction categories, the current guidance is still to include the ‘-’ sign for all negative trend magnitudes, including cases where the direction is already indicated as ‘decreasing’. Nevertheless, to avoid unnecessary data entry, it is not necessary to include the ‘+’ sign for positive trends (i.e. a trend magnitude of ‘15’ will be assumed to represent +15%). In the case of negative trends, note that the ‘Minimum’ and ‘Maximum’ fields relate to minimum and maximum values mathematically (not minimum and maximum declines). See Box 6 below for examples.

Box 6: Examples of trend-magnitude reporting for ‘decreasing’ and ‘increasing’ trends

In the case of a species with an estimated trend of -7 % over the relevant trend period, and 95 % confidence limits of -14 % and -2 % (i.e. not overlapping zero and hence indicating a statistically significant change), the trend direction should be reported as ‘decreasing’, the minimum trend magnitude as ‘-14’, the maximum as ‘-2’ and the best single value as ‘-7’.

In the case of a species with an estimated trend of +18 % over the relevant period, with 95 % confidence limits of +12 % and +24 %, the trend direction should be reported as ‘increasing’, and the minimum, maximum and best single value for magnitude as ‘12’, ‘24’ and ‘18’ respectively.

As indicated in ‘Explanatory Notes in support to the Reporting Format’ (and Section ‘3.4 Trend categories’), the trend direction category ‘uncertain’ is intended to cover situations where monitoring information does exist for a species, but is currently inconclusive (perhaps as a consequence of small sample sizes and/or stochastic effects). In the case of trends categorised as ‘uncertain’ by TRIM⁵², for example, lower and upper confidence limits will span zero, and widely so in at least one direction (hence why the trend is not treated as ‘stable’). In most of these cases, it is probably not appropriate to report a ‘best single value’, even if an average is available, given the uncertainty over the true trend. See Box 7 below for an example.

Box 7: Example of trend-magnitude reporting for an ‘uncertain’ trend

In the case of a species that has a short-term trend with lower and upper 95 % confidence limits of -53 % (i.e. equivalent to a multiplicative trend of <0.95 per year; see footnote 55 below) and +38 %

⁵² See <https://pecbms.info/methods/pecbms-methods/1-national-species-indices-and-trends/1-2-production-of-national-indices-and-trends/trend-interpretation-and-classification/>

respectively over the relevant trend period, the trend direction should be reported as 'uncertain', the minimum trend magnitude as '-53' and the maximum trend magnitude as '38'.

Similar to 'uncertain' trends, minimum and maximum trend magnitudes for 'stable' trends will span zero. In the case of trends derived from a statistically robust monitoring scheme, for example, the lower 95 % confidence limit will be negative and the upper limit will be positive (with the two also sufficiently close to zero for the trend direction to be considered 'stable', rather than 'uncertain'). In the case of trends categorised as 'stable' based on less robust data and/or expert opinion, the entries for minimum and maximum trend magnitude should be the negative and positive equivalents of the threshold used to distinguish 'stable' from 'increasing' or 'decreasing' trends (e.g. an overall change of <20% for long-term trends; see 'Explanatory Notes in support to the Reporting Format' and 3.4 Trend categories. Examples for both these types of scenario are provided in Box 8 below.

Box 8: Examples of trend-magnitude reporting for 'stable' trends

In the case of a species with an estimated trend of -4 % over the relevant trend period, and 95 % confidence limits of -11 % and +4 % (i.e. spanning zero), the trend direction should be reported as 'stable', the minimum magnitude as '-11', the maximum as '4' and the best single value as '-4'.

In the case of a species without robust monitoring data for (all of) the long-term trend period, but which is adjudged to have changed overall by less than 20 %, the trend direction should be reported as 'stable', the minimum magnitude as '-20' and the maximum as '20'.

As indicated in the 'Explanatory Notes in support to Reporting Format' (and Section '3.4 Trend categories'), the trend direction category 'fluctuating' is intended for species showing interannual increases and decreases of $\geq 50\%$, but no significant change in average population level over the trend period. Minimum and maximum trend magnitude values for 'fluctuating' trends will hence span zero widely, albeit usually not 'symmetrically' (owing to the skewed nature of percentage increases/decreases). The definition of the 'fluctuating' category means that the best single value – which may not be available in practice – is assumed to be zero (i.e. no net change over the relevant trend period). If a best single value is calculable and is larger than the threshold used elsewhere for 'increasing' or 'decreasing' trends, the trend direction should be reported as such instead (even if this net increase/decrease is 'overlaid' with marked fluctuations). See Box 9 below for examples for two types of 'fluctuating' trend scenario.

Box 9: Examples of trend-magnitude reporting for 'fluctuating' trends

In the case of a species that occurs at a relatively consistent 'baseline' of 50 most years, but with influxes of up to 3000 in certain years, the trend direction should be reported as 'fluctuating', the minimum trend magnitude as '-98' (i.e. the percentage decrease from the peak to the baseline) and the maximum as '5900' (i.e. the percentage increase from the baseline to the peak).

In the case of a rare breeding species – occurring in most (so 'regular'), but not all, years – whose numbers vary between zero and two pairs, but which does not show signs of becoming more or less

regular/common, the trend direction should be reported as ‘fluctuating’, the minimum trend magnitude as ‘-100’ (i.e. ‘disappearing’ in some years) and the maximum as ‘200’⁵³.

4 Main pressures and threats

This section provides complementary information to the guidance provided in Section **‘Error! Reference source not found.’** in the Explanatory Notes in support to the Reporting Format.

This section provides information on the main drivers related to the bird species’ status and trends. It can further help to identify actions required for restoration and is essential for communicating the results of the status and trends assessment to various stakeholders.

For Article 12 reporting, pressures are considered to be factors which have acted within the current reporting period, while threats are factors expected to be acting in the future (in the future two reporting periods, i.e. within 12 years following the end of the current reporting period). It is possible for the same impact to be both a pressure and a threat if it is having an impact now and this impact is likely to continue.

For the 2019–2024 reporting period one list of pressures will be submitted where the ‘timing’ of each pressure indicates if the pressure also acts as a threat. Whereas the scope and influence is only requested for pressures, the location information is applicable to both pressures and threats (if relevant). The list of pressures still retains the same system from the 2013–2018 reporting period (based principally on a causes (drivers) oriented system), with only minor modifications for coherence (e.g. merging of pressures, splitting etc). There are 14 pressure categories (table 3).

Table 3: Pressure categories in the list of pressures and threats

Pressure code	Pressure category	Note
PA	Agriculture related practices	Includes pressures and threats caused by agricultural practice.
PB	Forestry related practices	Includes pressures and threats caused by forestry activities, including thinning, wood harvesting, pest control in trees.
PC	Extraction of resources (minerals, peat, non-renewable energy resources)	Includes pressures related to extraction of materials, such as mining or quarrying, pollution or waste disposal.
PD	Energy production processes and related infrastructure development	Includes pressures related to production of energy, e.g. the construction and operation of power plants, water use for energy production, waste from energy production, activities and infrastructure related to renewable energy.
PE	Development and operation of transport systems	Includes pressures related to transportation of materials or energy, such as construction of

⁵³ Not strictly the percentage increase from zero to two (not calculable), but indicative of this nonetheless.

Pressure code	Pressure category	Note
		infrastructure, pollution and disturbances or increased mortality due to traffic.
PF	Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas.	Includes pressures related to development, construction and use of residential, commercial, industrial and recreational infrastructure, e.g. infrastructural changes on existing built areas, expansion of built areas, land use and hydrological changes for urban or industrial development, disturbances or pollution due to residential, commercial, industrial, or recreational infrastructure. Includes also pressures related to sport, tourism and leisure activities and infrastructure.
PG	Extraction and cultivation of biological living resources (other than agriculture and forestry)	Includes pressures linked to uses of biological resources other than agriculture and forestry.
PH	Military action, public safety measures, and other human intrusions	Includes pressures related to public safety and other human intrusions.
PI	Alien and problematic species	Includes pressures related to problematic inter-specific relationships with non-native species which cannot be associated with other pressure categories. Includes also problematic relationships with native species, which came out of balance due to human activities.
PJ	Climate change	Includes pressures related to climate change.
PK	Mixed source pollution	Includes pollution which cannot be associated with other pressure categories.
PL	Human induced changes in water regimes	Includes hydrological and physical modifications of water bodies, which cannot be associated with other pressures categories.
PM	Geological events, natural processes and catastrophes	Includes pressures such as natural fires, storms, tsunamis and natural processes, such as natural succession, competition, trophic interaction, erosion.
PN	Unknown pressures, no pressures and pressures from outside the Member State	

Further information on the list of pressures and practical guidance on how to use it for reporting on pressures and threats can be found on the Reference Portal.

In general, for migratory species the pressures (in any season) that are affecting the population (breeding, wintering or passage) being reported on should be included in the report. Pressures that are acting in the non-breeding seasons (e.g. on passage in other EU Member States and/or on wintering grounds outside the EU) but are affecting the breeding population being reported on, should be reported in the breeding-season report of the species in question.

If there is significant doubt that pressures operating outside the MS (although known to act on a species globally) are actually affecting birds from a breeding population (e.g. there is a significant doubt that the national breeding birds does winter in / migrate) they should not be reported for this species.

The pressures '*PX01 - Threats and pressures from outside the EU territory*' and '*PX02 - Threats and pressures from outside the Member State*' are only used for Article 17 reporting. For Article 12 reports, information on whether a pressure is acting within or outside the Member State (or within or outside the EU) should be provided for each reported pressure/threat in the specific field 'e) Location (where the pressure is primarily operating)'.

5 Conservation measures

This section provides complementary information to the guidance provided in the 'Explanatory Notes in support to the Reporting Format'.

The main purpose of the reporting on conservation measures is to obtain information allowing for a 'broad-brush' overview of the conservation measures: whether measures have been taken and if so which measures, their location (inside/outside the Natura 2000 network), and their impact on bird populations. The information on conservation measures feeds into the evaluation of the contribution of the Natura 2000 network to the status and trends of bird species (see also Section '[6 Natura 2000 \(SPAs\) coverage](#)'). This information can further help to understand any trends and changes in birds' status globally and is important for communicating the results of the status and trends assessment to different stakeholders.

The conservation measures should be reported using the codified list of measures. The list of conservation measures mirrors the list of pressures and threats, and the conservation measures are principally understood as an action to mitigate the impact of past and present pressures. The measures are classified into 13 categories corresponding to the main pressure categories (see Table 4) from which up to 20 measures can be reported. The list of measures contains additional category for measures related to management of target and other native species.

Table 4: Categories of conservation measures

Measure code	Categories of conservation measures
MA	Measures related to agricultural practices and agriculture-related habitats
MB	Measures related to forestry practices and forest-related habitats
MC	Measures related to resources extraction and energy production
ME	Measures related to development and operation of transport systems
MF	Measures related to residential, commercial, industrial and recreational infrastructures, operations and activities

MG	Measures related to the effects of extraction and cultivation of biological living resources
MH	Measures related to military installations and activities and other specific human activities
MI	Measures related to alien and problematic native species
MJ	Measures related to climate change
MK	Measures related to mixed source pollution and human-induced changes in hydraulic conditions for several uses
MM	Measures related to natural processes, geological events and natural catastrophes
MS	Measures related to management of species from the nature directives and other native species
MX	Measures outside the Member State

Further information on the list of conservation measures and practical guidance on how to use it for reporting can be found on the Reference Portal.

6 Natura 2000 (SPAs) coverage

This section provides complementary information to the guidance provided in the ‘Explanatory Notes in support to the Reporting Format’.

The evaluation of the contribution of the Natura 2000 network to the status of bird populations has three principal components:

1. evaluation of relevance of the network for different species (based on proportion of population within the network);
2. possible differences in trends (population trends) within the network compared to the general trend (overall species population trend including populations inside and outside the network);
3. understanding what type of conservation/management measures have been implemented (see Section ‘5 [Conservation measures](#)’).

The contribution of the Natura 2000 network to the conservation status of species is likely to vary according to the dependence of the species on sites, the coverage by the network, and site management.

Another element to be taken into consideration when evaluating the contribution of the network is the possible difference in trends within the network and globally (mainly for species where a significant proportion of a species population occurs outside the network). For bird species, this should be expressed by comparing the overall population trend with the trend of the population size within the Natura 2000 network.

The information on conservation measures completes and helps to understand the potential differences between trends within the network and global trends.

7 Action plans

The 'cause and effect' link between a national species plan implementation and improvement of a species status cannot be easily established. Even for species with a corresponding national plan which had been to a large extent implemented and where there was sufficient time for populations to respond to measures, the cause and effect relation, can rarely be proved. Furthermore, there are many species for which the national action plan hasn't been fully implemented or the implementation is too recent to trigger any positive response.

Information for fields '*10.3 Assessment of the effectiveness of SAPs for globally threatened species...*' and '*10.4 Assessment of the effectiveness of MPs for huntable species in non-Secure status ...*) should be reported for all species listed in the relevant table in the Reference Portal

Field '*10.2 Has a national plan linked to the international SAP/MP/BMS been adopted?*' highlights cases where the corresponding national plan has been adopted (this can be a very recent plan). Independently from information reported in this field, fields 10.3 and 10.4 inform on the improvement of the status of a species (looking at high level objectives from international species plans); they highlight cases where an improvement has been observed in comparison to the baseline status in the international plan.

For species with several plans, the field '*10.2 Has a national plan linked to the international SAP/MP/BMS been adopted?*' should be ticked 'yes' if there is currently a valid national action plan(s) related to either of international plans. The link(s) should be provided in the field 10.5. The assessment of effectiveness of the action/management plans in fields '*10.3 Assessment of the effectiveness of SAPs...*' and '*10.4 Assessment of the effectiveness of MPs...*' relates to the status of the species in relation to objectives of the plans. In the case of several plans for one species, the objectives outlined in the plans often complement each other, therefore a single assessment is normally possible. For specific cases of birds having both MP and SAP, both fields should be filled in.