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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Group of Experts on Protected Areas and Ecological Networks

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GUIDELINES FOR FILLING THE STANDARD DATA FORM

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INTRODUCTION

The Emerald Network is the ecological network for the conservation of wild animal and plant species and natural habitats of European importance. It consists of the Areas of Special Conservation Interest (ASCI) designated under Recommendation No. 16 (1989) and Resolution No. 3 (1996) of the Standing Committee to the Bern Convention.

Central to the success of the Emerald Network is the level of information on habitats and species of European interest. Hence data and information are needed in a structured and comparable format.

The basis for providing the data to implement the provisions of the Emerald Network is outlined in Resolution No. 5 (1998) concerning the rules for the Network of Areas of Special Conservation Interest (Emerald Network) and its revised Annex I.

The purpose and use of the Standard Data Form

The main objectives of the Emerald Network Standard Data Form (SDF) and the resulting database are:

(1) to provide the necessary information to enable the Standing Committee to Bern Convention to coordinate measures to create and maintain a coherent Emerald Network and to evaluate its effectiveness for the conservation of the species and habitats respectively listed in Resolutions No. 6 (1998) et No. 4 (1996);

(2) to update the list of Areas of Special Conservation Interest (ASCI);

(3) to provide a consistent and useful format for the exchange and communication of information on Emerald Network sites;

(4) for the use in research, planning and for other purposes in support of conservation policy;

(5) to provide a reliable reference and information source for the assessment of specific problems in case of potential infringements of the Bern Convention.

The SDFs, being the documentation of the Emerald Network, are considered an important information source for all these purposes. This documentation should therefore be kept reasonably up-to-date in order to fulfill its various purposes well. Thus regular updating by Contracting Parties and Observer States to the Bern Convention based on the best information available is strongly recommended. Negative changes to the SDF should be duly reported according to the guidelines agreed on by the Group of Experts on Protected Areas and Ecological Networks.

The revised Standard Data Form

The SDF was revised with a view to improving the availability and quality of data that are implicitly needed for the Emerald Network. Thereby certain parts of the old form were removed as they had become redundant; here in particular the improved availability of digital spatial data within the infrastructures for spatial information is taken into account. Additionally, certain important gaps were filled (e.g. information on the percentage of marine area within the sites) and necessary improvements were made to the structure of the data on ecological information.

Another reason for revision was the fast development of information technology for data management (e.g. automatic quality checks or the exact tracking of changes between deliveries) as well as the increasing availability of digital geographical information and analysis tools. Therefore no paper maps or forms are required any longer and data needs to be provided in electronic format only.

This document provides information about the different data fields of the SDF as well as on the geographical information needed and it illustrates how they should be completed.

Reference Portal for the Emerald Network

However some elements will be subject to change over time and subject to changes due to technical developments. Those elements shall be found in a ‘Reference Portal for the Emerald Network’, where they will be kept up-to-date and available for consultation. These elements concern: reference documents (e.g. the coding of species), technical support material (e.g. data-model, applications) as

well as guidelines to ensure a consistent use of the SDF by all countries and to outline the technical and administrative procedures on how to submit data to the Secretariat of the Bern Convention.

The Emerald Network Standard Data Form and its database

Each site proposed, candidate or designated must have a completed Standard Data Form. All fields of the SDF are obligatory unless specifically mentioned otherwise.

1. SITE IDENTIFICATION

1.1 Site type

This one-character code (A, B or C) indicates whether the site is a Site only designated for the conservation of birds (equivalent to a Special Protection Area (SPA) under the Birds Directive) or designated for the conservation of habitats or non-avian species (equivalent to pSCI, SCI or SAC under the Habitats Directive) or both.

1.2 Site code

Each site is recognised by a unique code that comprises nine characters and consists of two components:

1. The first two characters form the country code (see the ISO country codes on the Emerald Network Reference Portal).
2. The remaining seven characters, which serve to create a unique alphanumeric code for each site, are to be given following a logical and coherent system defined by the responsible national authority. As the codes are the identifying element of the sites they should be stable over time.

1.3 Site name

Sites names are entered in their local language. In this way, difficult translation is avoided and integration of existing data on the national or local level is straightforward. In the case of different characters (e.g. Cyrillic), names are transliterated into the Latin alphabet. Do not give site names in upper case text (e.g. 'Gave de Pau' NOT 'GAVE DE PAU').

1.4 First compilation date

Enter the date you wish to see as the 'first compilation date' for the information recorded in the SDF. The data field takes the form of the year (four digits) followed by the month in numeric form (two digits).

Example: 199305: data first compiled in May 1993.

In case of an enlargement of the site leave the 'first compilation date' unchanged, as this date is used for the first submission of the site only. Instead enter the date when the enlargement took place in the field 'update date' (see 1.5).

1.5 Update date

Enter the date when the information reported for the site was last changed, using the same format as for date in the example given for 1.4. In the case of a record of a new site leave the 'update' field empty. Where the information has been updated several times this field contains the date of the most recent change of information.

1.6 Respondent

Enter here the official contact information of the organisation (e.g. the competent administrative authority) that compiled the information contained in the record. The respondent should be the contact point in case of technical questions; the respondent can be a 'role' within the organisation (e.g. position within a unit).

1.7 Site indication and designation/classification dates

Four obligatory dates must be considered: the date a site is proposed as an Emerald Network site; the date the site is accepted as a Candidate Emerald Network site, the date the site is adopted as an Emerald Network site, and the date the site was designated nationally. Sub-fields will indicate the year and month of these dates. Where a site has been designated and subsequently enlarged, the year of the initial listing should be kept and the most recent total area should be given.

The different date fields are crucial for making the distinction between the different categories of sites (e.g. when making the data public in the Emerald Network Viewer). For this reason, countries are requested to send a new data base with corrected date fields after each Standing Committee meeting where revised designations were adopted.

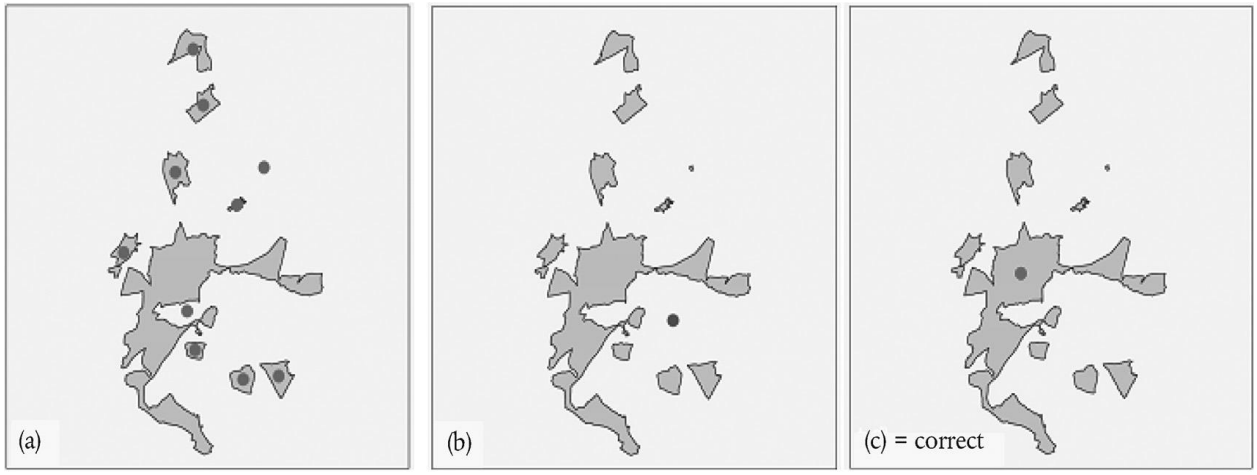
Enter the National legal reference of the ASCI designation in the relevant free text field. Additional explanations can be given in the optional free text field 'Explanations'.

2. SITE LOCATION

2.1 Site centre location

The geographical coordinates (longitude and latitude) of the centre of the site must be entered in Decimal Degrees. Longitudinal values west of the Greenwich Prime Meridian are given negative values while those to the east are given positive values (this can be confirmed with a + sign or taken as understood if there is no sign provided).

Where sites are composed of several distinct areas the coordinate of the most important sub-area should be entered (for practical purposes we suggest using the largest area). The coordinates entered for the site must be within the site. Care is needed in generating the centre coordinates automatically; in the following example a site consists of several polygons, the first image (a) shows where coordinates have been automatically created but note that the coordinate of the largest polygon is outside the polygon; in the second image (b) a single coordinate is generated for the largest site though it lies outside the site; in the third image (c) a coordinate is created for the largest site and the coordinate lies inside the polygon. Only the last example (c) is correct[1].



Conversion from Degrees, Minutes, and Seconds (DMS) is straightforward. A DMS value is converted to decimal degrees using the formula (D + M/60 + S/3600) e.g. Longitude 9° 15′ 30″ WEST, Latitude 54° 36′ 30″ becomes Longitude – 9,2583, Latitude 54,6083.

2.2 Site surface area

Enter the most accurate total surface area available in hectares; decimal places can be used. In case that surface area is not feasible enter the length of site in field 2.4 (site length) and in this case only leave the field site surface area empty.

[1] The majority of GIS software provides a function to calculate the centre coordinate within the largest feature of the site automatically.

Caves: Countries are encouraged to enter projected surface area for caves wherever possible otherwise use field 2.4.

Where the area of the site has changed over time, the most recent total area is entered.

2.3 Percentage of marine area in the site

The percentage of the marine area in the site has to be given. The definition of the coastline used to define the marine boundary should follow international (e.g. UN Convention on the Law of the Sea — UNCLOS) or national legislation. Each country shall provide the description of the boundary used to the Secretariat of the Bern Convention; it will then be made available in the reference portal (e.g. 'the area below the spring low tide limit').

Use estimation, when exact data are not available. Where the percentage of marine area in the site has changed over time, the most recent percentage should be entered.

2.4 Site length (optional)

Fill in this field if length is relevant (e.g. cliffs). Site length is entered in kilometres.

In case that the surface area is not given in field 2.2 the estimated site length must be entered here.

Where the length of the site has changed over time, the most recent total length is entered.

2.5 Administrative region code and name

For EU Member States, Eurostat has developed a standard hierarchical coding system for the regions of the European Union to reference statistical data. A full description can also be found at the homepage of Eurostat.

For non-EU countries an equivalent coding system is developed in close collaboration with the national Emerald teams. One code is obligatory. Where a site is split between two or more regions, as many codes as regions which are involved are entered in the database. The region name is required for cross- checking. The Administrative Region codings are available from the Emerald Network Reference Portal.

Where a site is not covered by an Administrative region, enter the code for 'extra region' or refer to the other administrative regions available from the Emerald Network Reference Portal.

2.6 Biogeographical region(s)

With reference to the map of the biogeographical regions (see the Emerald Network Reference Portal) indicate in which of these biogeographical region(s) the site occurs by marking the appropriate boxes; this does also apply for marine sites.

In case that a site is located in more than one region, the percentage of the coverage per region should be entered (optional).

Additional information on marine regions: The indication of the marine regions in the SDF is due to practical/technical reasons and concerns Countries in which one terrestrial biogeographic region is bordering two marine regions; it has no other implications. The most recent boundaries of the biogeographical regions and marine regions as well as the coding can be downloaded from the Emerald Network Reference Portal.

3. ECOLOGICAL INFORMATION

Countries should provide:

— all the relevant information on species of fauna and flora covered by Resolution No. 6 (1998) and regularly occurring migratory species not included in the Resolution (obligatory),

— all relevant information concerning the types of habitats listed in Resolution No. 4 (1996) (obligatory),

— other relevant information on important species of fauna and flora and habitats is desirable (optional),

3.1 Habitat types listed in Resolution No. 4 (1996) present on the site and site evaluation for them

(i) *Codes and cover of habitat types listed in Resolution No. 4 (1996) within the site*

Code: Enter here the four character code of the habitat types of Resolution No. 4 (1996) as presented in the code list for habitats available from the Emerald Network Reference Portal. Only codes appearing in the currently valid code list of habitat types should be used, codes for subtypes given in the Interpretation Manual should not be used.

Non-presence (NP) (optional): In cases where a habitat type listed in Resolution No. 4 (1996) for which the site was originally designated (i.e. which was formerly present) no longer exists on the site, it is strongly recommended to indicate this by entering 'x' in the column NP (alternative to the deletion of the information for this habitat type from the SDF).

Cover: All habitats listed in Resolution No. 4 (1996) occurring in the specific site must be noted, with the cover in hectare (see Figure 2). Decimal values can be entered.

There are situations where habitats can overlap (e.g. sand banks occurring within an estuary). In this case enter the area of each of the habitats (e.g. enter the area of the estuary and the size of the sand banks), in such cases, the total area of habitats may be greater than the site area. If this is not considered possible subtract the area of the smaller habitat from the area of the larger habitat.

Please note: In cases where it should be indicated that a habitat is considered as a candidate for introduction on the site, enter '-1' in the field 'size'.

Caves: For caves the number of caves can be entered if estimated surface area is not available.

Data Quality: Indicate the quality of the measurement in the field data quality. Indicate the data quality as far as possible: G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation).

(ii) *Site assessment criteria for a given natural habitat type of Resolution No. 4 (1996)*

— REPRESENTATIVITY: degree of representativity of the habitat type on the site.

The criterion should be linked to the interpretation manual of the habitat types listed in Resolution No. 4 (1996) since this manual provides a definition, an indication of characteristic species and other relevant elements. The degree of representativity gives a measure of 'how typical' a habitat type is. If need be, this assessment should likewise take into account the representativity of the habitat type concerned on the site in question, either for a group of habitat types or for a particular combination of different habitat types.

If the field data, namely quantitative data, for the comparison do not exist or if measurement of the criterion is not feasible, the 'best expert judgment' may be used to rank the habitat type.

The following ranking system should be used:

- **A: excellent representativity,**
- **B: good representativity,**
- **C: significant representativity.**

Furthermore, all cases where a habitat type is present on the site in question in a non-significant manner must be indicated in a fourth category:

- **D: non-significant presence.**

Where only forms of habitat which are of little conservation value are present please indicate 'D' (non- significant presence). For example a very degraded occurrence of a woodland with many of the usual species absent would be reported as 'D'.

In cases where the site representativity for the habitat type concerned is classed 'D: non-significant', no other indication is required for the other evaluation criteria concerning this habitat type on the site in question. In these cases the criteria 'Relative surface', 'Conservation status' and 'Global evaluation' should not be marked.

— RELATIVE SURFACE: Area of the site covered by the natural habitat type in relation to the total area covered by that natural habitat type within the national territory.

Theoretically, to assess this criterion one needs to measure the surface covered by the habitat type in the site, and the total surface of the national territory that is covered by the same habitat type. Although this is evident, it can be extremely difficult to make these measurements, especially those concerning the reference national surface.

This criterion should be expressed as a percentage 'p'. Whether the two measures exist or can be obtained (and the percentage can therefore be calculated), or that the result arises from estimation according to the best judgement (which is the more likely situation) an evaluation of 'p' in class intervals should be made using the following progressive model.

- A: $100 \geq p > 15$ %
- B: $15 \geq p > 2$ %
- C: $2 \geq p > 0$ %

— DEGREE OF CONSERVATION: Degree of conservation of the structure and functions of the natural habitat type, concerned and restoration possibilities.

This criterion comprises three sub-criteria:

- degree of conservation of the structure,
- degree of conservation of the functions,
- restoration possibility.

Although the above sub-criteria could be evaluated separately, they should nonetheless be combined for the requirements of selection of sites proposed on the national list as they have a complex and interdependent influence on the process.

(i) Degree of conservation of the structure

This sub-criterion should be linked to the interpretation manual habitats listed in Resolution No. 4 (1996) since this manual provides a definition, a list of characteristic species and other relevant elements.

Comparing the structure of a given habitat type present in the site with the data of the interpretation manual (and other relevant scientific information), and even with the same habitat type in other sites, it should be possible to establish a ranking system as follows, using the 'best expert judgment':

- I: excellent structure,
- II: structure well conserved,
- III: average or partially degraded structure.

In cases where the sub-class 'excellent structure' is given, the criterion should in its totality be classed as 'A: excellent conservation', independently of the grading of the other two sub-criteria.

In cases where the habitat type concerned on the site in question does not possess an excellent structure, it is still necessary to evaluate the other two sub-criteria.

(ii) Degree of conservation of the functions

It can be difficult to define and measure the functions of a particular habitat type on the defined site and their conservation, and to do this independently of other habitat types. For this reason it is useful to paraphrase 'the conservation of functions' by the prospects (capacity and probability) of the habitat type concerned on the site in question to maintain its structure for the future, given on the one hand

the possible unfavourable influences and on the other hand all the reasonable conservation effort which is possible.

- I: excellent prospects,
- II: good prospects,
- III: average or unfavourable prospects.

In cases where the sub-class 'I: excellent prospects' or 'II: good prospects' are combined with the grading 'II: structure well conserved' of the first sub-criterion, the criterion should in its totality classed as 'A: excellent conservation' or 'B: good conservation' respectively, independently of the grading of the third sub-criterion which should not further be considered.

In cases where the sub-class 'III: average or unfavourable prospects' is combined with the grading 'III: average or partially degraded structure' of the first sub-criterion, the criterion in its entirety should be classed as 'C: average or reduced conservation' independently of the grading of the third sub-criterion which should not further be considered.

(iii) Restoration possibilities

This sub-criterion is used to evaluate to what extent the restoration of a habitat type concerned on the site in question could be possible.

The first thing to evaluate is its feasibility from a scientific point of view: does the current state of knowledge provide an answer to the 'what to do and how to do it' questions? This implies a full knowledge of the structure and functions of the habitat type and of the concrete management plans and prescriptions needed to restore it, that's to say, to stabilise or increase the percentage of area covered by that habitat type, to re-establish the specific structure and functions which are necessary for its long-term maintenance and to maintain or restore a favourable conservation status for its typical species.

The second question that may be asked is the whether it is cost-effective from a nature conservation point of view? This assessment must take into consideration the degree of threat and rarity of the habitat type.

The ranking system should be the following, using 'best expert judgment':

- I: restoration easy,
- II: restoration possible with an average effort,
- III: restoration difficult or impossible.

Synthesis: applying to the overall grading of the three sub-criteria

- **A: excellent conservation**

  = excellent structure, independent of the grading of the other two sub-criteria,

  = structure well conserved and excellent prospects independent of the grading of the third criterion.

- **B: good conservation**

  = structure well conserved and good prospects independent of the grading of the third sub-criterion,

  = structure well conserved and average/maybe unfavourable prospects and restoration easy or possible with average effort,

  = average structure/partially degraded, excellent prospects and restoration easy or possible with average effort,

  = average structure/partially degraded, good prospects and easy restoration.

- **C: average or reduced conservation**

  = all other combinations.

— GLOBAL ASSESSMENT: Global assessment of the value of the site for conservation of the natural habitat type concerned.

This criterion refers to the global assessment of the value of the site for the conservation of the habitat type concerned. This criterion should be used to assess the previous criteria in an integrated way and taking into consideration the different weights they may have for the habitat under consideration. Other aspects may be considered regarding the evaluation of the most relevant elements in order to globally assess their positive or negative influence on the conservation of the habitat type. The 'most relevant' elements may vary from habitat type to habitat type; they may include the human activities, both in the site or in its neighbouring areas, that are likely to influence the conservation status of the habitat type, the ownership of the land, the existing legal status of the site, the ecological relations between the different habitat types and species, etc.

The 'best expert judgment' may be used to assess this global value, and the ranking system used to express it should be as follows:

- **A: excellent value,**
- **B: good value,**
- **C: significant value.**

It should be noted that the Standard Data Form is for assessments of the conservation of a habitat or species on a particular site whereas the assessments under Resolution No. 8 (2012) concerns the status across all of a biogeographical region within a country. The term 'conservation status' is defined as a term describing the overall status for a habitat type or species in a biogeographical region. This conservation status is now regularly assessed in the frame of the 6-yearly progress reports under Resolution No. 8 (2012) of the Bern Convention. The assessment of sites includes an assessment of the 'degree of conservation' of a habitat type or species in a specific site.

Figure 2

Example of data on habitat types present on the site and site evaluation for them (3.1)

Resolution No. 4 (1996) Habitat types					Site assessment			
Code	NP	Cover (ha)	Caves	Data quality	A|B|C|D	A|B|C		
					Representativity	Relative Surface	Conservation	Global
D1.2		2 212,70		G	B	B	B	B
H1		0	3	P	C	C	C	C
C1.222		921		G	A	C	B	C
A2.2		1 700		P	C	A	A	B

Figure 3

Example of data on species listed in Resolution No. 6 (1998) and site evaluation for them (3.2)

Species					Population on the site						Site assessment			
Group	Code	Name	S	NP	Type	Size		Unit	Cat.	Data quality	A|B|C|D	A|B|C		
						Min	Max		C|R|V|P	G|M|P|DD	Pop.	Cons	Isol.	Glob
B	A038	*Cygnus cygnus*			w	800	1 000	I		M	B	B	C	B
B	A038	*Cygnus cygnus*			c	1 500	1 500	I		P	A	B	A	B
P	1903	*Liparis loeselii*			p	20	30	I		G	C	A	C	A
I	1014	*Vertigo angustior*			p				R	DD	C	B	B	B

3.2 Species referred to in Resolution No. 6 (1998) and site evaluation for them

(i) *Code, name and population data on species*

For sites as appropriate enter the Group, Code and Scientific Name of all fauna and flora species listed in Resolution No. 6 (1998) that occur at the site with an indication of their population within the site (see below).

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles.

Code: The four character sequential code for each species can be found in code list for species available from the Emerald Network Reference Portal.

Sensitivity (S): Indicate in this field whether the public availability of the information given for a certain species could be detrimental to its conservation, for example because it is subject to illegal collecting and the public availability of the information held by the SDF would genuinely increase that threat. If this is the case enter 'yes' in this field. If a species is marked as sensitive, the presence of the species on the site will not be disclosed to the public by the Secretariat of the Bern Convention on its own motion (for instance, by means of posting this information on a publicly available database or Internet-based site). If the information on the presence of this species in a certain area is already available to the public, e.g. online information, a marking of the species as sensitive cannot be considered justified.

Non-presence (NP) (optional): In cases where a species for which the site was originally designated for (e.g. which was formerly present in the site) is no longer present in the site, it is strongly recommended to indicate this by entering 'x' in the column NP (alternative to the deletion of the information for this species from the SDF). Species which have not been present on the site since the Resolution No. 6 (1998) came into force as well as 'historic occurrences' should not be noted.

Please note: Species are considered as no longer present in the site e.g. if they have not been observed in the site for a long time. The time period will vary between species, absence for a few years for an easy-to-observe species probably indicates disappearance whereas for difficult to observe species such as bryophytes or some insects, absence of observations for many years does not necessarily indicate absence if the habitat has not changed.

Type: Use the following categories:

- Permanent (p): to be found throughout the year on the site (non-migratory species or plant, resident population of migratory species).
- Reproducing (r): uses the site to raise young (e.g. breeding, nesting).
- Concentration (c): site used for staging or roosting or migration stop/over or for moulting outside the breeding grounds and excluding wintering.
- Wintering (w): uses the site during the winter.

Where a non-resident population is present on a site in more than one season entries should be made separate for these 'population types' (see example in Figure 3) e.g. as a number of fauna species, in particular many bird species, are migratory the site may be important for different aspects of the life cycle of species.

In case that it is not possible to enter data for different seasons, enter data for the most important (either wintering or concentration).

Size: As regards abundance, enter known population data if available. If the population size is known fill in both fields (min and max) with the same value. Where it is more appropriate to give a population interval, fill in the estimated values for the lower boundary (min) and the upper boundary (max) of this interval. Where a population interval is not known but information exists on either minimum or maximum population size, estimate the missing value for the interval. Please note that the min and max values should be an average over several years rather than extreme values.

Where even a rough estimation of the population size cannot be made, enter the population type (e.g. permanent) and enter in the 'data quality' field the value DD (data deficient). In this case the values for population size can be left empty and the field for abundance categories can be used instead (common (C), rare (R), very rare (V), or present (P)). The character of the population in the site can be further described in the text field 'Quality and Importance' (4.2) outlining the nature of the population (e.g. dense, dispersed or isolated). The abundance categories may be used in addition to the population size.

Please note: In cases where it should be indicated that a species is considered as a candidate for introduction on the site, enter '-1' in the field 'size'.

Unit: Indicate the unit of the population value in the corresponding field. Recommended units are individuals (= i) or pairs (= p) wherever possible, otherwise please use the most precise units available following the standardised list of population units and codes as developed under Resolution No. 8 (2012) reporting (see Reporting Reference Portal).

Abundance category (Cat.): see explanation above under 'size' — C = common, R = rare, V = very rare, P = present — this field should be filled in if the data are deficient (DD) and no population size estimation can be given or in addition to quantitative estimations of population size.

Data quality: Indicate the data quality using following code: G = 'Good' (e.g. based on surveys); M = 'Moderate' e.g. based on partial data with some extrapolation; P = 'Poor' e.g. rough estimation; DD = 'Data deficient' (recommended to use this entry, if not even an estimation of the population size can be made).

(ii) *Site assessment criteria for a given species listed in Resolution No. 6 (1998)*

— POPULATION: Size and density of the population of the species present on the site in relation to the populations present within national territory.

This criterion exists to evaluate the relative size and density of the population in the site with that of the national population.

This last aspect is in general quite difficult to evaluate. The optimal measure would be a percentage, resulting from the ratio of the population in the site/population in the national territory. It is proposed to use an estimate or a class interval according to the following progressive model:

- A: 100 % ≥ p > 15 %,

- B: 15 % ≥ p > 2 %,
- C: 2 % ≥ p > 0 %.

Furthermore, all cases where a population of the species concerned is present on the site in question in a non-significant manner must be indicated in a fourth category.

- D: non-significant population.

Where a species is rarely observed on a site, for example only a vagrant, this is not considered to be a significant population and should be recorded as 'D'.

In cases where the site representativity for the population concerned is classed as 'D: non-significant', no other indication is required for the other evaluation criteria concerning this habitat type on the site in question. In these cases the criteria 'Conservation', 'Isolation' and 'Global evaluation' should not be marked.

— DEGREE OF CONSERVATION: Degree of conservation of the features of the habitat which are important for the species concerned and possibilities for restoration.

This criterion comprises two sub-criteria:

- degree of conservation of the features of the habitat important for the species;
- restoration possibilities.

(i) Degree of conservation of the features of the habitat important for the species

Criterion (i) requires a global evaluation of the features of the habitat regarding the biological requirements of a given species. The features relating to population dynamics are among the most appropriate for both animal and plant species. The structure of the habitat and some abiotic features should be assessed.

The 'best expert judgment' should be used to rank this criterion:

- I: elements in excellent condition,
- II: elements well conserved,
- III: elements in average or partially degraded condition.

In cases where the sub-class 'I: elements in excellent condition' or 'II: elements well conserved' is given the criterion should in its totality be classed as 'A: excellent conservation' or 'B: good conservation' respectively independently of the grading of the other sub-criteria.

(ii) Restoration possibilities

For this sub-criterion, which only needs to be taken into account when the elements are in an average or partially degraded condition, an approach analogous to that of criterion A(c)(iii), should be used, adding an evaluation of the viability of the population under consideration. This should result in the system of grading as follows:

- I: restoration easy,
- II: restoration possible with average effort,
- III: restoration difficult or impossible.

Synthesis applying to classification if the two sub-criteria

- **A: conservation excellent**

  = elements in an excellent condition, independent of the grading of the possibility of restoration.

- **B: good conservation**

  = elements well conserved independent of the grading of the possibility of restoration,

  = elements in average or partially degraded condition and easy to restore.

- **C: average or reduced conservation**

  = all other combinations.

— ISOLATION: Degree of isolation of the population present on the site in relation to the natural range of the species.

This criterion may be interpreted as an approximate measure of the contribution of a given population to the genetic diversity of the species on the one hand and of the fragility of this specific population on the other hand. Using a simplistic approach one may say that the more a population is isolated (in relation to its natural range), the greater is its contribution to the genetic diversity of the species. Consequently the term 'isolation' should be considered in a wider context, applying equally to strict endemics, to sub-species/varieties/races as well as sub-populations of a meta-population. In this context the following grading should be used:

- **A: population (almost) isolated,**
- **B: population not-isolated, but on margins of area of distribution,**
- **C: population not-isolated within extended distribution range.**

— GLOBAL: Global assessment of the value of the site for conservation of the species concerned.

This criterion refers to the global assessment of the value of the site for the conservation of the species concerned. It may be used to sum up the previous criteria and also to assess other features of the site thought to be relevant for a given species. These features may vary from one species to another and might include human activities on the site or in nearby areas which are capable of influencing the conservation status of the species, land management, the statutory protection of the site, ecological relations between the different types of habitats and species, etc.

A 'best expert judgment' may be used for this global evaluation, using the following ranking system:

- **A: excellent value,**
- **B: good value,**
- **C: significant value.**

It should be noted that the Standard Data Form is for assessments of the conservation of a habitat or species on a particular site whereas the assessments under Resolution No. 8 (2012) concerns the status across all of a biogeographical region within a country. The term 'conservation status' is defined in as a term describing the overall status for a habitat type or species in a biogeographical region. This conservation status is now regularly assessed in the frame of the 6-yearly progress reports under Resolution No. 8 (2012) of the Bern Convention. The assessment of sites includes an assessment of the 'degree of conservation' of a habitat type or species in a specific site.

3.3 Other important species of flora and fauna (optional)

All other important species of flora and fauna may be subsequently entered, where they are relevant to the conservation and management of the site, according to the following procedure:

Group: Enter the code of the relevant species group (A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles),

Name and code: Provide the scientific name of the species and the code as provided in the code list for species available from the Emerald Network Reference Portal,

Sensitivity (S): Indicate in this field whether the public availability of the information given for a certain species could be detrimental to its conservation, for example because it is subject to illegal collecting and the public availability of the information held by the SDF would genuinely increase that threat. If this is the case enter 'yes' in this field. If a species is marked as sensitive, the presence of the species on the site will not be disclosed to the public by the Secretariat of the Bern Convention on its own motion (for instance, by means of posting this information on a publicly available database or Internet-based site). If the information on the presence of this species in a certain area is already

available to the public, e.g. through publications or online information, a marking of the species as sensitive cannot be considered justified,

Non-presence (NP) (optional): In cases where a species formerly present in the site is no longer present this can be indicated by entering 'x' in the column NP (alternative to the deletion of the information for this species from the SDF).

Please Note: Species are considered as no longer present in the site e.g. if they have not been observed in the site for a long time. The time period will vary between species, absence for a few years for an easy-to-observe species probably indicates disappearance whereas for difficult to observe species such as bryophytes or some insects, absence of observations for many years does not necessarily indicate absence if the habitat has not changed,

Size: Provide information on population size. Where an exact number is not known give a population interval if possible, fill in the values for the lower boundary (min) and the upper boundary (max) of this interval. Where a population interval is not known but information exists on minimum or maximum population size, estimate the missing value for the interval. Indicate the unit of the population value in the according field. Units should be pairs (= p) or individuals (= i) wherever possible, otherwise please follow the standard list of population units and codes as developed under Resolution No. 8 (2012) reporting (see Reporting Reference Portal). If necessary units other than those used for Resolution No. 8 (2012) reporting can be entered,

Category: Where quantitative data do not exist indicate whether the species is common (C), rare (R), or very rare (V). In the absence of any population data indicate it as being present (P) (see Figure 4 for an example).

Please indicate the motivation for listing each species using the following categories:

A. National Red List Data,

B. Endemics,

C. International Conventions (including Berne, Bonn and Biodiversity),

D. Other reasons.

Multiple entries of categories are possible. Further details on the motivations for listing individual species, especially regarding D, can be given in Section 4.2 which is the free text field for describing the quality and importance of the site.

Figure 4

Example of data on other species (3.3)

Species					Population in the site				Motivation					
Group	Code	Name	S	NP	Size		Unit	Cat.	Species Annex		Other Categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
P		*Acer heldreichii*			51	100	I					x		
P		*Accipter nisus*			2	4	I							x
M		*Eptesicus serotinus*			150	200	I		x		x			
I		*Ectemnius massiliensis*						R						x
R		*Elaphe longissima*						C	x				x	
P		*Campanula morettiana*						C	x		x			

4. SITE DESCRIPTION

4.1 General site character

This field should provide an overall 'picture' of the site. Summarise the broad characteristics of the site starting with an indication of the site's division into broad habitat classes using best expert judgment to estimate their percentage cover (these habitat classes are listed together with their codings in the Emerald Network Reference Portal). The total cover of habitat classes should be 100 % and correspond to the total surface area of the site. It is expected that information under this section will not always be in line with information given under Section 3.1 (Habitat types listed in Resolution No. 4 (1996)) due to the use of different data sources.

'Other site characteristics': The main geological, geomorphological and landscape features of importance should be described in the free text field of 4.1. Where relevant indicate the dominant vegetation types. Also mention other habitats or species which are not listed in the Resolutions No. 4 (1996) and No. 6 (1998) important for the conservation of the site. Where further detailed breakdown of the information on habitat classes is important for the conservation of the site (e.g. whether dehesas or vineyards) this should be given in this free text section. Information on small linear and mosaic-type wooded areas (e.g. hedges, boscage, tree lines) should also be provided under this general text.

4.2 Quality and importance

Enter the overall indication of the quality and importance of the site, in view of the conservation objectives of Emerald Network.

For internationally important wetlands that regularly hold more than 20 000 waterfowl this fact should be entered here.

Where a species is listed in Section 3.3 with motivation D, outline the basis for its inclusion.

4.3 Threats, pressures and activities with impact on the site

Impacts relate to all human activities and natural processes that may have an influence, either positive or negative, on the conservation and management of the site. It is recognised that an impact can be negative for one habitat or species in the site while it is positive for another. Nevertheless it is the purpose of this field to collect information on the most important threats, pressures and activities for the site in general rather than to report on everything. Please also take into account threats, pressures and activities in the surroundings of the site, if they affect the integrity of the site. Whether this is the case will depend among other factors such as on local topography, the size and nature of the site and on the type of human activities. The information should reflect the most recent situation. It is understood that threats, pressures and activities with negative impacts may be counteracted by the management measures. Therefore information on these should be read and understood in conjunction with e.g. management plans for the site.

You will find the valid Reference list of Threats, Pressures and Activities in the Emerald Network Reference Portal. Considering the most relevant threats, pressures and activities with impact on the site as such, enter the appropriate code of level 3 categories; in case that the level 3 categories are not applicable, level 2 can be used. The code list is the same as used for the reporting of impacts and activities under Resolution No. 8 (2012) of the Bern Convention.

The relative importance of a threat, pressure or activity must be ranked in three categories:

- H: High importance/impact: Great direct or immediate influence and/or acting over large areas.
- M: Medium importance/impact: Medium direct or immediate influence, mainly indirect influence and/or acting over moderate part of the area/regionally only.
- L: Low importance/impact: Low direct or immediate influence, indirect influence and/or acting over small part of the area/locally only.

The data entries for the highest rank are limited to a maximum of five negative and five positive impacts. The minimum obligatory number of data entries for each table is one impact. If there are no impacts and to be reported, enter 'x'. Within a category (H or M or L), there is no ranking. Data entries for impacts and activities with medium or low importance can be listed up to a limit of 20 entries. However, it is recommended to focus on the most relevant impacts and activities for the site.

Pollution qualifier (optional)

As pollution can have quite different effects according to the substances involved and have quite different sources, for example the question of nitrogen or phosphate input in aquatic ecosystems or atmospheric nitrogen input in terrestrial oligotrophic habitats, an additional qualifier for the specific kind of pollutants can be applied.

The following qualifiers can be used:

N: Nitrogen input

P: Phosphor/Phosphate input

A: Acid input/acidification

T: toxic inorganic chemicals

O: toxic organic chemicals

X: Mixed pollutions

Inside/outside qualifier

Indicate whether the threat, pressure or activity occurs/acts inside or outside the site or both as well.

4.4 Ownership (optional)

Enter a general description of the site ownership by using the given ownership classes. Include an estimate of the proportion of the site area in each ownership class. Use the ownership classes which are analogous to those used within the World Database on Protected Areas (see https://protectedplanet.net/c/wdpa-lookup-tables#Ownership%20Type)

Public:

— National/Federal: Land belongs to all citizens, held by the national/federal government,

— State/Province: Land belongs to all citizens, held by the state/provincial Public government,

— Local/Municipal: Land belongs to all citizens, held by the local/municipal government.

Joint or Co-Ownership: Joint/Co-Ownership by two or more entities (e.g. public and private).

Private: Land not under public ownership e.g. NGO, individuals, corporations.

4.5 Documentation (optional)

If available, for each site reference is made to relevant publications and/or scientific data concerning the site. Information entering should be made according to standard convention for scientific references. Unpublished papers or communications, referring to the information given in the recording form, should be included wherever useful. For links to online resources take into account that in general URLs often change and therefore avoid entering unstable URLs. The field can also be used for other information important for the documentation of the site.

5. SITE PROTECTION STATUS (OPTIONAL)

5.1 Protection status at national and regional level

For each country, a sequential list of the relevant nature conservation designation types, which have statutory protection and their definition on the national/regional level is maintained by the European Environmental Agency and can be found in the Emerald Network Reference Portal. Three lists of protection types cover the following three categories:

A. Designation types used with the intention to protect fauna, flora, habitats and landscapes (the latter as far as relevant for fauna, flora and for habitat protection);

B. Statutes under sectorial, particularly forestry, legislative and administrative acts providing an adequate protection relevant for fauna, flora and habitat conservation;

C. Private statutes providing durable protection for fauna, flora or habitats.

Protection types are ranked by strictness of protection starting the strictest statutes.

Where there is no protection status for the site it is important to indicate this by using the national code corresponding to 'No protection status'.

For each site the codes of the appropriate designation types are to be entered, together with the % cover within the site for each designation type. The information stored in this field is on the level of the different designation types. If for example several nature reserves of the same type are included in the recorded site, the percentage of the total area covered by these reserves is to be entered.

The relation of individual designated areas with the site is recorded separately (see 5.2).

5.2 Relation of the described site with other sites (neighbouring sites and sites belonging to different designation types)

This part of the recording form allows neighbouring sites or sites belonging to different designation types which overlap or neighbour each other to be indicated. The interrelationship between the different types is also established by cross- referencing them. All possible relationships are coded using one of the following:

— sites are coincident (use code =),

— the described site includes another site completely (use code +),

— the other site includes the described site completely (use code –),

— the two sites partially overlap (use code *).

In addition to entering these codes, the percentage of the described site that is overlapping with the other site should be entered.

— Neighbouring sites are indicated with a '/'.

In addition, the form provides for possible designation types on the international level: Ramsar site, Biogenetic reserve, European Diploma area, Barcelona Convention site, Biosphere reserves, World Heritage site, OSPAR site, HELCOM site, Bucharest Convention site, Protected Marine Area or other.

Please enter national designations with the name of the site together with the type of relation (see above) and % overlap with reference to the described site.

5.3 Site designation

Enter as free text any aspect of the site designation that is not adequately covered by the codes used in the site designation code fields of Section 5.1 or 5.2.

6. SITE MANAGEMENT

6.1 Body responsible for the site management

Provide information on the body(ies) responsible for the management of the site.

Enter the full reference including name, address, phone/fax, e-mail of the authority and/or individual responsible for the management of the site.

It is possible to enter a full reference for more than one body.

6.2 Management plan

Indicate whether or not a specific and actual management plan exists for the site or whether one is in preparation. While it is acknowledged that management plans are not a requirement under the

Emerald Network provisions, this information is of special interest in order to understand the instruments countries use to manage their network and also to find more specific information if need be.

If there is an actual management plan, please give its name and give a link to relevant online resources (e.g. link to the webpage of a national information system). Take into account that in general URLs frequently change and therefore avoid entering unstable URLs.

6.3 Conservation measures (optional)

Information on conservation measures taken or necessary for the site can be provided in the free text field.

7. MAP OF THE SITE

A precondition for this revised version of the Standard Data Form is the availability of georeferenced, digital boundaries of the sites. Relevant information for e.g. statistical purposes will be taken from the combination with other digital spatial data (GIS data). Therefore the submission of georeferenced, digital boundaries of the sites are crucial.

The boundaries of the sites should be taken from published topographic maps or datasets in a scale of 50 000 or finer. The spatial cartographical accuracy may not be less than 1,0 mm at 1:50 000 which is equivalent to 50 m on the ground when compared to the original.

PDF: A country can provide in addition to the electronic boundaries an electronic map that follows ISO 19005-1: Document Management — Electronic document file format for long-term preservation. The Identifier of the sites (site code) and the creation date of the map must be included within the pdf in a way, that the document can be retrieved electronically by site code and creation date (optional).

Reference(s) (optional): enter here the national references to the original map used for the digitisation of the electronic boundaries. The reference can e.g. be the official identification number(s) and name(s) of the topographic map(s).