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**Supporting elements for
the Alpine Natura 2000 review seminar
(1st part: Core document)**

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Executive summary

- This report provides analytical elements in support to the review seminar for the Alpine region
- For the first Alpine seminar held in 2013, a list of 22 habitat-types of priority interest for discussion among Alpine countries had been selected. The establishment of this list resulted from a combination of a ranking of habitat-types clustered per broad habitat categories prepared by ETC/BD, based on main outcomes from 2001-2006 Art 17 reporting, and of an expert selection made by the Alpine Steering Committee. The explanation of the approach was described in the pre-scoping document for the Alpine region prepared by ETC/BD in October 2012¹. Section 3 of the present report presents a re-assessment of these 22 previously selected habitat-types, applying the (almost) same methodology than in 2012, based on outcomes of 2007-2012 Art 17 reporting. This approach aims at identifying habitats of priority interest due to their bad situation. Therefore, in the following sections this approach is called the ‘worst situation approach’.
- In section 4 of this document, another methodological approach is described and applied, aiming at the identification of habitats in the Alpine region for which an improvement of the conservation status could potentially be reached rapidly. This approach is the “Low Hanging Fruits” approach.
- Re-assessing the 22 previously selected Alpine habitats according to the ‘worst situation approach’, making use of 2007-2012 Art 17 reporting, provides similarities with the 2012 ranking, with grassland and fen habitat types ranked first.
- Applying the Low Hanging Fruits approach leads to a selection of 20 habitat-types among which only 4 are common with the 2012 list of 22 habitats selected according to the ‘worst situation approach’ with 2001-2006 Art 17 data.
- Descriptive fact-sheets are presented for each of the 20 selected Low Hanging Fruits habitats.

1. Introduction

As stated by the European Commission ‘*the aim of the Natura 2000 Biogeographical Process is to support Member States and expert stakeholders to achieve progress towards legal requirements and ensure that Natura 2000 effectively contributes to meeting the EU 2020 Biodiversity objectives, primarily the full implementation of the nature directives (Target 1). It is and will remain a practical framework to support knowledge building, cooperation and networking on the management of Natura 2000 at the biogeographical level, aiming at achieving coherence in management, monitoring, financing of, and reporting on the Natura 2000 Network and involving Member States, expert stakeholders, practitioners and the European Commission working together in a spirit of collaboration and cooperation. In concrete terms, the Natura 2000 Biogeographical Process provides a means to analyse and interpret results from reporting on species’ and habitats’ conservation status at a biogeographical level, to identify major threats and to establish corresponding biogeographical level conservation objectives, to engage in active cross-border cooperation and networking between all actors involved in the management of Natura 2000 and to make commitments and recommendations for future action. Through making increased use of relevant data from Article 12 and Article 17 reports, the Process will concentrate on enabling target oriented implementation of the Nature Directives with a view to achieving favourable conservation status for habitat types and species of community interest*’.

¹ Arvela M., Bailly Maitre J., Sipkova Z., Evans D., Mac Sharry B., Aronsson M., Tjernberg M., Halada L., Gajdos P., and Romao C. 2012: Revised pre-scoping document for the Natura 2000 Seminar of the Alpine Region. ETC/BD report to the European Environment Agency

The first [Alpine Natura 2000 Biogeographical seminar](#) took place in November 2013, preceded by preparatory workshops for this region. As a starting point to discussions among Member States on which habitats (species) to focus priority for collaborative action, the ETC/BD had been asked to propose a methodology for identifying and ranking habitat-types of priority concern based on results from the Art 17 reporting for the period 2001-2006, and to prepare so-called ‘Pre-scoping document’ for each biogeographical region. The methodology used in 2012 allowed to identify habitats in a rather bad situation, thus calling for urgent collaborative action among Member States.

Following discussion among Member States, a final selection of **22 habitat-types**² of the Alpine region were identified and ranked as priority for further action by Member States. This was reflected in the [revised pre-scoping document for the Alpine region](#) prepared by ETC/BD in October 2012.

Now that the first phase of the Natura 2000 Biogeographical process is over, with all biogeographical regions having been covered, a new phase has been initiated with so-called Review Natura 2000 seminars. This new phase aims at monitoring and evaluating the results of the actions agreed at the kick-off seminars actions and to identify and recommend further priorities and opportunities for continuous development of the process. The first review seminar for the Alpine region will take place in April 2017.

The present document gathers a number of elements/ analyses, which were agreed as needed in support to the preparation of the Alpine review seminar, namely:

In section 2: revisiting the assessment which had been made in October 2012, based on Art 17 (2001-2006) and leading to the identification of 22 priority Alpine habitat-types, i.e. redo the analysis making use of Art 17 (2007-2012) data. As a few features were newly available as compared to the reporting round, such as the trend in conservation status, the methodology used for assessing and ranking is slightly amended as compared to October 2012 and is presented in section 2. As previously mentioned, this methodology enhances habitats which are in a rather bad situation in terms of conservation status and trends. In section 2 of this document, it will be called the ‘**worst situation approach**’

In section 3: a new methodology developed upon request from the European Commission by ETC/BD for identifying and ranking priority habitats is presented. Still making use of Art 17 (2007-2012) data, but also data on coverage by Natura 2000, this methodology enhances habitats which have more chance to improve their status in a relatively short term and with relatively low effort. This approach is called ‘**Low Hanging Fruits**’ approach. Twenty habitat types selected according to this approach in the Alpine region are presented and ranked.

In section 4, individual fact-sheets for the 20 Low Hanging Fruits habitat types in the Alpine region are presented.

² The original ranking by ETC/BD applied to 37 habitat-types. A further selection was made by Member States, resulting in a shortened list of 20 habitat-types

2. Re-assessing Alpine habitat types based on 2007-2012 reporting data ('Worst situation approach')

2.1 Data used

In the revised pre-scoping document for the Alpine region, prepared in October 2012, the ranking of habitat-types to define priorities for further discussion among Member States was based on data from the 2001-2006 Art. 17 reporting cycle (national-level assessments). Overall 22 priority habitats had been selected and were reflected in this pre-scoping document. In the following section, a re-analysis and a re-ranking of the 22 previously selected habitats are made, using more recent Art. 17 data, i.e. from the period 2007-2012 (<http://bd.eionet.europa.eu/article17>).

2.2 Method used

The methodology applied is the same than for other biogeographical regions, as described below.

2.2.1 Criteria for prioritisation (Criterion A, B and C)

Ranking habitats and species should reflect on one side the conservation 'urgency/priority' (unfavourable conservation status and declining trends) and on the other side joint interest of Member States involved in the seminar (i.e. priority given to habitat types and species which occur in a higher number of countries in the region).

The ranking methodology is based on three criteria, i.e.:

Criterion A. *Number of MS where species/habitat types are present.*

Criterion B. *Species and habitat types at unfavourable conservation status*

Criterion C. *Trend information (declining trend)*

Details on how criteria B and C are applied are provided as follows:

Criterion B. Species and habitat types at unfavourable conservation status

(U2 & U1 & XX)

The terms of reference for the biogeographical seminars exclude from the discussion species and habitats already at favourable conservation status. This is why species and habitats with favourable conservation status are not taken into account under criterion B. Species and habitats are allocated a score based on their conservation status in each Member State in the following way:

The habitat/species scores

- 2 points for each Member State in which it has been assessed as Unfavourable-Bad (U2) and
- 1 point if Unfavourable-Inadequate (U1) or Unknown (XX).

and these scores summed up give the overall score.

This criterion reflects the importance to agree on management for habitat types and species that are far from being at favourable conservation status compared to those ones which are close to favourable status.

Criterion C. Trend information

As part of the 2007-2012 Article 17 reporting, Member States also provided information on the trend in Unfavourable conservation status (+ Improving trend, - Declining trend, = Stable, X Unknown trend). All species and habitat types that were reported as U1 or U2 having an overall negative trend in the Article 17 reports were taken into account.

C = Number of Member States where the trend in Unfavourable conservation status is declining³

2.2.2 Applying the methodology to define the Priority Index

After the scores are given to each habitat type and species according to the criteria A, B and C, the scores are then used to calculate a Priority Index for each species and habitat type.

For example the Priority Index for the habitat “*Species-rich Nardus grasslands on siliceous substrates in mountain areas (and submountain areas in Continental Europe)*” (6230)” in the Alpine region is assessed as follows:

	Member State	Score for criteria A	Conservation status	Score for criteria B	Trend	Score for criteria C
	AT		U1	1	=	
	BG		U1	1	=	
	DE		U1	1	-	1
	ES		XX	1		
	FR		FV			
	IT		U2	2	-	1
	PL		U2	2	-	1
	RO		FV			
	SE		U2	2	-	1
	SI		U1	1	-	1
	SK		U1	1	-	1
		11		12		6
Priority Index	198					

$$A = 11$$

$$B = 2(N^{\circ}U2) + 1(N^{\circ}U1) + 1(N^{\circ}XX) = 2*3 + 1*5 + 1*1 = 12$$

$$C = 1(N^{\circ}-) = 1*6 = 6$$

$$\text{Priority Index} = A*(B+C) = 11*(12+6) = 198$$

2.2.3 Criteria for clustering habitats and species

The first discussions in 2011 on the new Natura 2000 seminars at biogeographical level identified a need to cluster the habitats and species into broader habitat groups. The clustering of habitat types and species developed by the EEA and the ETC/BD for the EU 2010 Biodiversity Baseline⁴ was used, with a slight adaptation, as a basis to group species and habitat types under broad habitat groups for the first Alpine pre-scoping document as this was the most recent available grouping covering all concerned Member States and relatively easy to be adjusted for the purposes of these seminars.

³ In previous assessment using 2001-2006 data, trend in conservation status was not uniformly reported by MS. Instead, two parameters were taken into account: trend of area of habitat type and qualifier for Structure & functions.

⁴ The EU 2010 Biodiversity Baseline provides facts and figures on the state and trends of the different biodiversity and ecosystem components and supports the EU in developing the post-2010 sub-targets and provides factual data for measuring and monitoring progress in the EU from 2011 to 2020 (<http://www.eea.europa.eu/publications/eu-2010-biodiversity-baseline>)

Table 2.1 List of habitat groups used with distinguishing colours

Grasslands	
Forests	
Heaths	
Scrubs	
Rock	
Wetlands	
Freshwater	
Coastal	
Marine	

2.3 Results of habitat ranking according to the ‘worst situation approach’

Results of applying the above described methodology on the 22 previously selected Alpine habitat-types, making use of Art 2007-2012 data, as compared to 2012 results are shown in Table 2.2.

Column 9 of Table 2.2 shows the Priority Index for habitats based on (2007-2012) Art 17 data and their ranking. For comparison, the Priority Index calculated with (2001-2006) Art 17 data and the corresponding ranking are presented in column 11.

It should be stressed however that the values of Priority Indices in columns 11 and 9 cannot be compared directly – calculation using (2001-2006) Art 17 data can reach maximal value 576 (because of two parameters used for criterion C) while calculation using (2007-2012) Art 17 data can reach maximal value 432 (one parameter used for criterion C).

The new ranking shows a number of changes in the order “priority” habitats:

- Habitats 6520 (Mountain hay meadows), 7230 (Alkaline fens), 6210 (Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco - Brometalia*)), 6230 (Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)), and 6410 (*Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*)) still rank among the five first priority habitats and their order did not change.
- Habitat 3220 (Alpine rivers and the herbaceous vegetation along their banks) now ranks 10th while it was only ranked 14th in 2012
- Habitat 6430 (Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels) which was ranked 17th in 2012, now ranks only 22nd
- Habitat 7110 (Active raised bogs) is now ranked 12th while instead of 15th in 2012

Table 2.2 EU conservation status and Priority Index for habitats in the Alpine region, based on 2007-2012 Art 17 data as compared to results based on 2001-2006 Art 17 data

Habitat code and grouping	Habitat-type	Priority	EU Conservation status	Trend	Criterion			Priority Index (and rank)	EU Conservation status	Previous Priority Index (and rank)
			(2007-2012)		A	B	C	A*(B+C)	(2001-2006)	(2001-2006)
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	N	U1	=	9	8	2	90 (14)	U1	81 (16)
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation	N	U2	-	11	8	2	110 (10)	XX	110 (12)
3220	Alpine rivers and the herbaceous vegetation along their banks	N	U1	-	10	6	3	90 (14)	U1	140 (10)
3230	Alpine rivers and their ligneous vegetation with <i>Myricaria germanica</i>	N	U2	-	10	11	3	140 (9)	U2	160 (9)
3240	Alpine rivers and their ligneous vegetation with <i>Salix eleagnos</i>	N	U1	-	9	9	2	99 (13)	U1	117 (11)
3260	Water courses of plain to montane levels with the <i>Ranunculon fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation	N	U1	-	10	6	2	80 (16)	U1	100 (14)
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco - Brometalia</i>) * important orchid sites	N	U1	-	11	14	4	198 (3)	XX	198 (3)
6230	Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas (and sub-mountain areas in Continental Europe)	Y	U2	-	11	12	6	198 (3)	U1	198 (3)
6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	N	U2	-	11	12	6	198 (3)	U2	187 (5)
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	N	U1	=	12	3	1	48 (22)	U1	72 (17)
6510	Lowland hay meadows (<i>Alpecurus pratensis</i> , <i>Sanguisorba officinalis</i>)	N	U2	-	10	13	6	190 (6)	U1	170 (6)
6520	Mountain hay meadows	N	U2	-	11	15	6	231 (1)	U2	253 (1)
7110	Active raised bogs	Y	U1	-	9	10	2	108 (12)	U2	99 (15)
7140	Transition mires and quaking bogs	N	FV	=	12	12	2	168 (8)	U2	168 (7)
7230	Alkaline fens	N	U1	=	12	13	4	204 (2)	U1	216 (2)
91 D0	Bog woodland	Y	FV	=	11	8	2	110 (8)	U1	110 (12)
91 E0	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>)	Y	U2	-	12	12	3	180 (7)	U2	168 (7)
9130	<i>Asperulo-Fagetum</i> beech forests	N	U1	=	9	5	1	54 (20)	U1	40 (20)
9170	<i>Galeo-Carpinetum</i> oak hornbeam forests	N	U1	=	6	8	1	54 (20)	U1	30 (21)
9180	<i>Tilio-Acerion</i> forests of slopes, screes and ravines	Y	U2	=	10	6	2	80 (16)	U1	70 (18)
9260	<i>Castanea sativa</i> woods	N	U1	-	5	7	4	55 (19)	U2	30 (21)
9410	Acidophilous <i>Picea</i> forests of the montane to alpine levels (<i>Vaccinio-Piceetea</i>)	N	U1	-	9	7	1	72 (18)	U1	45 (19)

"Note: Colours used in the first column correspond to broad habitats categories as described in Table 2.1 (some habitats are related to two broad habitat categories)"

3. Assessing Alpine habitat-types according to the ‘Low hanging fruits’ approach

3.1 Background to the ‘Low hanging fruits’ approach

As opposed to the ‘Worst situation approach’, the ‘Low Hanging Fruits (LHF)’ approach focuses on habitats which have better chance to improve rapidly, therefore contributing to reaching Target 1 of the EU Biodiversity Strategy.

TARGET 1: FULLY IMPLEMENT THE BIRDS AND HABITATS DIRECTIVES

To halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant and measurable improvement in their status so that, by 2020, compared to current assessments:

100% more habitat assessments and 50% more species assessments under the Habitats Directive show a favourable or improved conservation status; and

50% more species assessments under the Birds Directive show a secure or improved status.

The methodology proposed for identifying LHF habitats thus takes into account the approach taken to assess progress towards Target 1. ‘In the guidelines for assessing conservation status and species at biogeographical level (2007-2012), the different options for changes in conservation status between two reporting periods were presented in a matrix, as shown in Table 3.1:

Table 3.1. Matrix showing the different cases of changes in conservation status between the (2001-2006) and the (2007-2012) reporting periods

Change in conservation status between reporting periods		CS in 2007-2012							
		FV	U1 +	U1	U1 -	U2 +	U2	U2 -	XX
CS in 2001 - 2006	FV	A (=)	C (-)	C (-)	C (-)	C (-)	C (-)	C (-)	E (x)
	U1	A (+)	B (+)	D (=)	C (-)	C (-)	C (-)	C (-)	E (x)
	U2	A (+)	B (+)	B (+)	B (+)	B (+)	D (=)	C (-)	E (x)
	XX	A (=)	B (+)	D (=)	C (-)	B (+)	D (=)	C (-)	D (=)

FV = Favourable, **U1** = Unfavourable – inadequate, **U2** = Unfavourable – bad, **XX** = Unknown

The signs between brackets indicate the type of change in the conservation status between reporting periods: **(=)** no change, **(+)** improvement, **(-)** deterioration, **(x)** not known.

‘**A**’ indicates ‘favourable’ assessments, ‘**B**’ ‘improved’ assessments, ‘**C**’ ‘deteriorated’ assessments, ‘**D**’ unfavourable and unknown assessments that did not change, and ‘**E**’ assessments that became ‘unknown’.

Source: Guidelines for Article 17 reporting 2013)

Improvements in conservation status are met in the following cases:

An assessment becomes FV while it was not in the last reporting round

Change from U2 to U1

Change from – to = or +

Change from = to +.

3.2 Proposed methodological approach to identify ‘low hanging fruits’ (LHF)

The proposed methodology takes into account the following main criteria:

- Number of parameters responsible for an Unfavourable Conservation status of a feature (the less parameters, the easier to reach Favourable Conservation Status).
- Natura 2000 coverage (the higher the coverage of a feature, the better chances to set conservation measures and improve).
- Expert assessment on what is needed to improve the biogeographic assessment in the sense of Target 1 (i.e. either improving status class or improving trend in conservation status).

As not only improvement in status class but also improvements of status trend counts as progress towards Target 1, the method was developed in a way that features in all classes would qualify, also in the ‘bad’ class.

Step 1: sort out and group all features (species or habitats) according to their conservation status and trend in conservation status:

Group 1 – Features that already are in FV

Group 2 – U1+ could change to FV

Group 3 – U1= could change to U1+

Group 4 – U1x could change to U1+

Group 5 – U1- could change to U1=

Group 6 – U2+ could change to U1

Group 7 – U2= could change to U2+

Group 8 – U2x could change to U2+

Group 9 – U2- could change to U2=

Group 10 – XX could change to U1+ or U2+

Step 2: Summing up the values for conservation status of parameters reported for each habitat or species in each Member State that shares the feature in a particular biogeographic region and divide it with the representation (coverage) of the feature in Natura 2000 (in percent)

The following algorithm is proposed: $C = A/B$ then multiplied by 100, where:

A = the sum of the parameters Range, Area and Structure & Function (in the case of habitats) or the sum of the parameters Range, Population and Habitat for the species (in the case of species) for all Member States in the region where the habitat or the species occurs.

B = Coverage of the feature by the Natura 2000 network (in percent)

C = Low Hanging Fruit (LHF) score for the habitat or species

For each parameter, the following rules are applied:

U2 = 2 points

U1 = 1 point

XX = 1 point

FV = 0 point

The lower the score the higher is the ranking of a habitat as LHF.

Example: Habitat 7220 in the Alpine biogeographical region: Range U1 in AT, ES, IT and XX in RO (4p), Area U1 in AT, IT, PL, SI and XX in DE, ES, FR, RO, SK (9p), S&F U1 in AT, BG, IT, SK and XX in DE, FR, PL, RO (8p) = in total 21 points. This is divided with percentage of the habitat that occurring in Natura 2000 sites in the Alpine region (98.35 %) and then multiplied by 100. This gives the score 21.35.

Step 3: The features are sorted within each LHF Group 1- 10 after their score from lowest to highest.

Step 4: For each feature the need for improvement in order to contribute to Target 1 is identified (as far as possible, sometimes there are too many unknowns) and the threats reported in Article 17 (only 'High') are taken into account.

Step 5: The features are checked by an expert one by one to sort out which of these habitats are true 'Low Hanging Fruits', i.e. could reach improvement in a limited period of time.

3.3 Testing the proposed approach for habitats in the Alpine biogeographical region

Data from (2007-2012) Art.17 reporting for all Annex I habitats from the Alpine region were used. An overview table of the detailed results can be found in Annex to this note.

The robustness of a methodological approach to identify "low hanging fruits" largely depends on the quality of the data from Article 17. The Alpine region is a region with in general quite good data across Member States. Still, much of the information is based on expert judgment with rather weak underpinning especially for Structure & Functions.

In the Alpine region, 116 habitats listed under the Habitats Directive are reported.

As shown in 3.2, **Step 1** consists in identifying groups of habitats which fall under each 10 different scenario of possible improvement in conservation status:

- Group 1 – Habitats that already are FV – 30 habitats
- Group 2 – U1+ could change to FV – no habitat
- Group 3 – U1= could change to U1+ – 29 habitats
- Group 4 – U1x could change to U1+ – 7 habitats
- Group 5 – U1- could change to U1= – 19 habitats
- Group 6 – U2+ could change to U1 – no habitat
- Group 7 – U2= could change to U2+ – 2 habitats
- Group 8 – U2x could change to U2+ – 1 habitat
- Group 9 – U2- could change to U2= – 19 habitats
- Group 10 – XX could change to U1+ or U2+ – 9 habitats

Except for Groups 1 and 2, habitats in each group share need for improvement, and groups with the same sort of improvement needed are closer to each other e.g. Group 3 and 7 – both should change from '=' to '+' to improve. However, within each group, measures needed for the change to happen may be quite different

Steps 2 and 3 for all habitats was carried out - the defined algorithm $C = A/B$ was applied and the habitats were ranked inside each group.

In general the habitats with few Member States responsible for improvement and with a high proportion of the habitat inside Natura 2000 are ranked high.

Step 4: For each habitat the main needs to reach improvement towards Target 1 were described based on the data from the Art 17 national reports and the EU biogeographical assessments. For a habitat' conservation status to improve on a short term, mainly the parameters 'Structure and functions' and 'Area' are relevant, as opposed to 'Range' which generally can only improve on the long term. 'Future prospects' assessment was felt not reliable enough – because reported in a very heterogeneous way by Member States - to be used in the analysis. Thus, looking at the EU conservation status of a habitat within a biogeographical region, an analysis is made of which parameter is the most influential in assigning this status. Then, looking at national data, an analysis is made of which country is mainly responsible for the EU status of this parameter.

For most habitats it was rather clear what is needed and about how much as in most cases it is a trend that need to change from – to = or from = to + and the most common parameter that should improve are Structure & Functions.

Step 5: Habitats with the highest probability to improve according to Target 1 were selected manually, primarily based on the possibility for a rapid improvement, but also in some cases by taking into account in addition the threats listed in the Art.17 (those reported as 'High').

Results of the tested approach are presented in Table 3.2.

Table 3.2. Habitats selected as 'Low Hanging Fruits' (not ranked)

Group	Habitat	NEEDED FOR IMPROVEMENT (Critical parameters and MS to reach improvement)
Group 3	3180	Structure & Functions in SI - Improve quality in SI
Group 3	62D0	Structure & Functions in BG - Improve quality in BG
Group 3	91Z0	Structure & Functions in BG - Improve quality in BG
Group 3	91W0	Structure & Functions in BG - Improve quality in BG
Group 3	40A0	Structure & Functions in SK - Improve quality in SK
Group 3	9560	Structure & Functions in FR - Improve quality in FR
Group 3	91M0	Structure & Functions in BG and SK - Improve quality in BG and SK
Group 3	9270	Structure & Functions in BG - Improve quality in BG
Group 3	9110	Structure & Functions in IT - Improve quality in IT
Group 3	4080	Structure & Functions in IT - Improve quality in IT
Group 3	9170	Structure & Functions in BG - Improve quality in BG
Group 4	9510	Structure & Functions in IT - Improve quality in IT
Group 5	4070	Structure & Functions in IT - Improve quality in IT
Group 5	9050	Area in SE - stop decline in Area in SE
Group 5	9410	Structure & Functions in IT - improve quality in IT
Group 5	7220	Structure & Functions in IT - improve quality in IT
Group 5	9260	Structure & Functions in IT - improve quality in IT
Group 9	91L0	Structure & Functions in IT - improve quality in IT
Group 9	91H0	Structure & Functions in IT - improve quality in IT
Group 9	3150	Structure & Functions in IT - improve quality in IT

Note: Overlap with list of habitats according to 'Worst situation approach' flagged in yellow

Most habitats that are “easy targets” are those from Group 3 U1= should improve to U1+ or Group 5 and 9 U1- and U2- should improve to U1= respectively U2=. As in most cases Structure & Functions

need to improve the more detailed information on what needed is lacking in the Article 17 reporting, so with that uncertainty an internal ranking between the listed habitats is not possible.

Comparing with Table 2.2, it can be seen that 4 ‘Low Hanging Fruits’ habitats were also selected among the Top 20 Alpine habitat-types according to the ‘Worst situation approach’, based on Art 17 (2001-2006) data i.e. 3150 (Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation), 9170 (*Galio-Carpinetum* oak hornbeam forests), 9260 (*Castanea sativa* woods) and 9410 (Acidophilous *Picea* forests of the montane to alpine levels (*Vaccinio-Piceetea*)). They are flagged in yellow in Table 3.2.

3.4 Conclusions on the ‘Low Hanging Fruits’ approach applied to Alpine habitat-types

- Most of the ‘Low Hanging Fruits’ habitats depend on improvements in only one MS (not surprising!)
- For most LHF habitats, a change in the trend of the ‘Structure & Function’ parameter is needed. Parameters ‘Area’ or ‘Range’ are probably more difficult to improve. This result is another argument in favour of more information on ‘Structure & Function’ in the Article 17 reporting as it is crucial information needed for a better assessment on how to improve conservation status.
- The 10 different groups of habitat can be further investigated for different uses, as they point out a) habitats that are in need of better information (Group 4 and 8); b) habitats that are in need of stopping deterioration (Group 5 and 9).
- One result of this test is that in general habitats that need an improvement in trend from = to + or – to = are easier and faster in response than habitats that need to change status class from U1 to FV or U2 to U1. It is normally much easier to change a trend than to reach an improvement based on a threshold.
- Only four habitats from the previous priority (‘Top 22’) list based on 2007-2012 data are also in the LHF list, but that was expected as the ranking criteria were to a large extent opposed to each other.

4. Introduction to descriptive fact-sheets for Low Hanging Fruits habitats in the Alpine region

Each of the 20 Top Low Hanging Fruits habitat-types identified for the Alpine region are described in separate fact-sheets (see document entitled “Supporting elements for the Alpine review seminar, 2nd part: Fact sheets for Low hanging fruits ”habitats”) and provide the following information:

- Summary: A summary of main features described in the following sections:
- Habitat description: as reflected in Interpretation Manual of European Union Habitats
- Distribution in the Alpine region and coverage by Natura 2000 network: as reported by Member States in their 2013 report (covering the period 2007-2012)
- Biogeographical conservation status assessment: as reported by Member States in their 2013 report (covering the period 2007-2012) and available at: <http://bd.eionet.europa.eu/article17/reports2012/>
- Pressures, threats and proposed measures: as reported by Member States in their 2013 report (covering the period 2007-2012)
- Reason for selection as ‘Low Hanging Fruit’ habitat in the Alpine region: outcome of an analysis of the parameters which could rapidly improve
- Priority conservation measures needed: outcome of an expert judgement analysis
- Links: link to the relevant page on the Art 17 portal <http://bd.eionet.europa.eu/article17/reports2012/>
- In addition, a section to be filled by Member States is appended to each fact-sheet.

Annex

Results of application of 'Low Hanging Fruit' criteria per habitat in the Alpine Region

Legend:

CS = conservation status; **n° MS** = number of Member States where the habitat occurs in the region; **R** = Points for Range (see step 2 of methodology); **A** = Points for Area (see step 2 of methodology); **S&F** = Points for Structure & Functions (see step 2 of methodology); **Total**: Total of points summing up R, A, S&F; **Area (km²)** = Total area of habitat; **Area (N2K)** = Area of habitat inside the Natura 2000 network; **N2K cover (%)** = Percentage of total habitat area covered by the Natura 2000 network; **Cover class**: N2K cover expressed in classes (1 = 0-19,9 % , 2 = 20-49,9 % , 3 = 50-79,9 % , 4 = 80-100 %); **LHF index**: Result of the application of the algorithm under step 2 of the LHF methodology x 100; Low Hanging Fruits are marked in light red

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
Group 1 - Habitats in FV on Biogeographical level														
7160	FV	2	0	0	0	0	23.0	8.2	36	2	0.00	1	OK	NO HIGH
7310	FV	2	0	0	0	0	4,200.0	3,800.0	90	4	0.00	2	OK	NO HIGH
91Q0	FV	3	0	0	0	0	32.3	22.1	68	3	0.00	3	OK	NO HIGH
91R0	FV	1	0	0	0	0	7.0	1.0	14	1	0.00	4	OK	NO HIGH
91V0	FV	1	0	0	0	0	14,400.0	4,334.9	30	2	0.00	5	OK	NO HIGH
9210	FV	1	0	0	0	0	705.8	388.8	55	3	0.00	6	OK	NO HIGH
9220	FV	1	0	0	0	0	36.9	36.1	98	4	0.00	7	OK	NO HIGH
3190	FV	1	0	0	0	0	0.1	0.1	100	4	0.00	8	OK	NO HIGH
6440	FV	1	0	0	0	0	500.0	282.8	57	3	0.00	9	OK	NO HIGH
40B0	FV	1	0	0	0	0	0.0	0.0	100	4	0.00	10	OK	NO HIGH
8120	FV	10	0	0	0	0	2,607.3	839.8	32	2	0.00	11	OK	K01.01 - Erosion
8240	FV	4	0	0	0	0	712.6	278.5	39	2	0.00	12	OK	NO HIGH
7130	FV	2	0	0	1	1	1.4	1.4	100	4	1.00	13	OK	NO HIGH
3210	FV	2	0	0	1	1	565.0	382.4	68	3	1.48	14	OK	NO HIGH

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
9040	FV	2	0	0	1	1	18,000.0	11,060.0	61	3	1.63	15	OK	A04.01 - intensive grazing; K04.05 - damage by herbivores (including game species)
8110	FV	10	0	0	1	1	3,976.7	2,330.5	59	3	1.71	16	OK	K01.01 - Erosion
9110	FV	2	0	0	1	1	32.1	12.3	38	2	2.60	17	OK	NO HIGH
9420	FV	7	0	0	1	1	4,285.4	1,353.0	32	2	3.17	18	OK	NO HIGH
6190	FV	3	0	1	1	2	109.2	59.9	55	3	3.65	19	OK	K02.01 - species composition change (succession)
8160	FV	7	1	2	2	5	44.6	37.6	84	4	5.93	20	OK	C01 - Mining and quarrying; K02 - Biocenotic evolution, succession
8210	FV	12	0	2	1	3	3,042.9	1,481.4	49	2	6.16	21	OK	NO HIGH
3110	FV	3	2	2	2	6	609.1	522.6	86	4	6.99	22	OK	NO HIGH
6150	FV	11	1	0	2	3	12,468.6	4,513.1	36	2	8.29	23	OK	K01.01 - Erosion
4060	FV	12	0	1	4	5	36,056.8	17,748.9	49	2	10.16	24	OK	A04.01 - intensive grazing; K02 - Biocenotic evolution, succession; M01 - Changes in abiotic conditions
4090	FV	4	1	1	1	3	840.7	192.2	23	2	13.12	25	OK	NO HIGH
3160	FV	11	2	4	7	13	224.9	202.9	90	4	14.41	26	OK	A04 - grazing; A07 - use of biocides, hormones and chemicals; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); J02 - human induced changes in hydraulic conditions
3130	FV	7	2	4	5	11	2,149.4	1,469.9	68	3	16.08	27	OK	H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); H07 - Other forms of pollution; J02 - human induced changes in hydraulic conditions; J02.05 - Modification of hydrographic functioning, general; J03 - Other ecosystem modifications; M01 - Changes in abiotic conditions
8220	FV	12	0	1	3	4	20,176.3	1,323.9	7	1	60.96	28	OK	K02.01 - species composition change (succession); K02.02 - accumulation of organic material
91D0	FV	11	2	5	7	14	2,166.4	426.0	20	1	71.19	29	OK	B07 - Forestry activities not referred to above; C01.03.01 - hand cutting of peat; D01.02 - roads, motorways; G02.02 - skiing complex; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); H02 - Pollution to groundwater (point sources and diffuse sources); J01 - fire and fire suppression; J02 - human induced changes in

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
														hydraulic conditions; J02.01 - Landfill, land reclamation and drying out, general; K01.03 - Drying out; M01 - Changes in abiotic conditions; M01.02 - droughts and less precipitations
7140	FV	12	3	8	10	21	9,051.0	1,375.8	15	1	138.15	30	OK	A04 - grazing; C01.03 - Peat extraction; G02.02 - skiing complex; I02 - problematic native species; J02.01.02 - reclamation of land from sea, estuary or marsh; J02.05 - Modification of hydrographic functioning, general; K02 - Biocenotic evolution, succession
Group 2 - Habitats needs to be FV on Biogeographical level to improve														
No Habitats														
Group 3 - Habitats needs to change from U1= to U1+ on Biogeographical level to improve														
3180	U1=	1	0	0	1	1	27.7	27.7	100	4	1.00	1	Structure & Functions in SI - Improve quality in SI	NO HIGH
62D0	U1=	1	0	0	1	1	331.8	320.2	96	4	1.04	2	Structure & Functions in BG - Improve quality in BG	NO HIGH
95A0	U1=	1	0	0	1	1	101.4	93.5	92	4	1.08	3	Structure & Functions in BG - Improve quality in BG	G02.02 - skiing complex
91Z0	U1=	1	0	0	1	1	3.2	3.0	91	4	1.10	4	Structure & Functions in BG - Improve quality in BG	NO HIGH
91W0	U1=	1	0	0	1	1	394.8	296.5	75	4	1.33	5	Structure & Functions in BG - Improve quality in BG	NO HIGH
91BA	U1=	1	0	0	1	1	246.8	155.0	63	3	1.59	6	Structure & Functions in BG - Improve quality in BG	G02.02 - skiing complex; K02.01 - species composition change (succession)
91CA	U1=	1	0	0	1	1	1,569.0	951.8	61	3	1.65	7	Structure & Functions in BG - Improve quality in BG	G02.02 - skiing complex
40A0	U1=	2	0	0	1	1	8.4	3.9	46	2	2.16	8	Structure & Functions in SK - Improve quality in SK	NO HIGH
9560	U1=	3	0	0	3	3	16.1	14.7	91	4	3.29	9	Structure & Functions in FR - Improve quality in FR	I02 - problematic native species; J01.01 - burning down; K02 - Biocenotic evolution, succession
5120	U1=	2	0	0	1	1	775.7	211.0	27	2	3.68	10	Structure & Functions in ES - Improve quality in ES	B01 - forest planting on open ground; E01 - Urbanised areas, human habitation; G02 - Sport and leisure structures; J01 - fire and fire suppression

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
92C0	U1=	1	0	0	1	1	0.6	0.2	23	2	4.27	11	Structure & Functions in BG - Improve quality in BG	J02.06 - Water abstractions from surface waters
5210	U1=	4	1	1	2	4	116.6	99.9	86	4	4.67	12	Structure & Functions in BG and IT - Improve quality in BG and IT	B01 - forest planting on open ground; E01 - Urbanised areas, human habitation; J01 - fire and fire suppression; J01.01 - burning down; M01 - Changes in abiotic conditions
91G0	U1=	3	1	1	2	4	122.1	83.7	69	3	5.84	13	Structure & Functions in BG - Improve quality in BG	B02.04 - removal of dead and dying trees; B02.06 - thinning of tree layer; C01 - Mining and quarrying
91M0	U1=	2	1	1	3	5	65.0	51.9	80	4	6.27	14	Structure & Functions in BG and SK - Improve quality in BG and SK	NO HIGH
9270	U1=	1	0	0	1	1	98.2	13.3	14	1	7.37	15	Structure & Functions in BG - Improve quality in BG	NO HIGH
5110	U1=	3	1	2	2	5	270.3	152.4	56	3	8.87	16	Structure & Functions in ES - Improve quality in ES, more information from ES and IT	A04 - grazing; B01 - forest planting on open ground; E01 - Urbanised areas, human habitation; J01 - fire and fire suppression
6430	U1=	12	0	2	3	5	2,839.7	1,599.7	56	3	8.88	17	Structure & Functions in BG and IT - Improve quality in BG and IT	A02.01 - agricultural intensification; A02.03 - grassland removal for arable land; A07 - use of biocides, hormones and chemicals; A08 - Fertilisation; B02 - Forest and Plantation management & use; G01 - Outdoor sports and leisure activities, recreational activities; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); I01 - invasive non-native species; J02.10 - management of aquatic and bank vegetation for drainage purposes; K04.01 - competition (flora)
9150	U1=	9	0	0	6	6	3,606.2	1,759.3	49	2	12.30	18	Structure & Functions in BG, FR and IT - Improve quality in BG, FR and IT	B02 - Forest and Plantation management & use; B02.04 - removal of dead and dying trees; B03 - forest exploitation without replanting or natural regrowth; G02.02 - skiing complex
9130	U1=	9	0	0	4	4	15,249.9	4,447.2	29	2	13.72	19	Structure & Functions in AT, BG and IT - Improve quality in AT, BG and IT	B02 - Forest and Plantation management & use; B02.04 - removal of dead and dying trees; F03.01.01 - damage caused by game (excess population density)
9110	U1=	9	0	0	6	6	10,840.2	4,250.1	39	2	15.30	20	Structure & Functions in IT - Improve quality in IT	B02.02 - forestry clearance; B02.04 - removal of dead and dying trees; F03.01.01 - damage caused by game (excess

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
														population density)
5130	U1=	8	2	2	4	8	349.5	156.1	45	2	17.91	21	Structure & Functions in FR - Improve quality in FR	A04 - grazing; A04.01 - intensive grazing; A04.03 - abandonment of pastoral systems, lack of grazing; A10.01 - removal of hedges and copses or scrub; C01 - Mining and quarrying; G02.02 - skiing complex; J01.01 - burning down; K02 - Biocenotic evolution, succession; M01 - Changes in abiotic conditions
9120	U1=	3	1	1	3	5	705.1	195.2	28	2	18.07	22	Structure & Functions in FR - Improve quality in FR	B02 - Forest and Plantation management & use; B03 - forest exploitation without replanting or natural regrowth
4080	U1=	10	2	4	4	10	1,343.6	676.5	50	3	19.86	23	Structure & Functions in IT - Improve quality in IT	NO HIGH
6110	U1=	8	2	3	5	10	1,007.4	295.2	29	2	34.12	24	Range, Area and Structure & Functions in IT - change trend to positive for Range and Area and improve quality in IT	C01.01 - Sand and gravel extraction; K02 - Biocenotic evolution, succession
9170	U1=	6	2	2	8	12	2,109.1	689.8	33	2	36.69	25	Structure & Functions in BG - Improve quality in BG	B02 - Forest and Plantation management & use; B02.01 - forest replanting; B02.04 - removal of dead and dying trees; I01 - invasive non-native species
3140	U1=	9	2	5	7	14	197.7	72.6	37	2	38.12	26	Area in AT, FR and IT, Structure & Functions in AT and IT - increase area in AT, FR and IT and improve quality in AT and IT, better information on Structure & Functions from FR	H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); H07 - Other forms of pollution; J02 - human induced changes in hydraulic conditions; J02.05 - Modification of hydrographic functioning, general; J03 - Other ecosystem modifications; M01 - Changes in abiotic conditions
4030	U1=	6	3	4	4	11	662.4	171.2	26	2	42.57	27	Area and Structure & Functions in ES and IT - Change trend in Area to positive in ES, increase area in IT and improve quality in ES and IT	A02 - modification of cultivation practices; A04.03 - abandonment of pastoral systems, lack of grazing; B01 - forest planting on open ground; D02.01 - electricity and phone lines; J01 - fire and fire suppression; K02 - Biocenotic evolution, succession; K02.01 - species composition change (succession)
7230	U1=	12	4	9	11	24	1,785.0	252.6	14	1	169.63	28	Range in IT and Area in AT and IT - change trend from	A02.01 - agricultural intensification; A03 - mowing / cutting of grassland; A03.03 - abandonment / lack of

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
													decline to increase in IT for Range and Area and increase area in AT	mowing; A04 - grazing; A08 - Fertilisation; A11 - Agriculture activities not referred to above; C01.03 - Peat extraction; D01.01 - paths, tracks, cycling tracks; E06 - Other urbanisation, industrial and similar activities; G01 - Outdoor sports and leisure activities, recreational activities; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); J02 - human induced changes in hydraulic conditions; J02.01.02 - reclamation of land from sea, estuary or marsh; J02.01.03 - infilling of ditches, dykes, ponds, pools, marshes or pits; J02.05 - Modification of hydrographic functioning, general; J02.07 - Water abstractions from groundwater; K02 - Biocenotic evolution, succession; K02.01 - species composition change (succession)
8310	U1=	11	3	4	4	11	30,389.8	1,049.6	3	1	318.49	29	Complex situation, Area and Structure & Functions in ES and RO - Change trends in Area to positive and improve quality in RO and better information from ES	C01.01 - Sand and gravel extraction; E03.01 - disposal of household / recreational facility waste; G01.04.02 - speleology; G01.04.03 - recreational cave visits; G05.04 - Vandalism; G05.08 - closures of caves or galleries
Group 4 - Habitats needs to change from U1x to U1+ on Biogeographical level to improve														
9510	U1x	1	0	0	1	1	7.2	6.6	92	4	1.09	1	Structure & Functions in IT - Improve quality in IT	NO HIGH
9340	U1x	3	0	0	3	3	376.5	161.3	43	2	7.00	2	Structure & Functions in ES and IT - Improve quality in ES and IT	J03.02 - anthropogenic reduction of habitat connectivity
6140	U1x	2	0	1	1	2	1,111.3	588.1	53	3	3.78	3	Area and Structure & Functions in ES - increase Area and better information on Structure & Functions in ES	NO HIGH
4020	U1x	1	1	1	1	3	0.3	0.3	74	3	4.08	4	Better information from ES	NO HIGH
6130	U1x	3	0	1	1	2	3.3	1.4	43	2	4.67	5	Better information from AT	K02.01 - species composition change (succession)

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
6420	U1x	3	2	2	2	6	3.2	2.4	75	4	7.96	6	Range and Structure & Functions in ES - change trend in Range and improve quality from ES, better information from IT	A07 - use of biocides, hormones and chemicals; A09 - Irrigation; E03 - Discharges; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); J02 - human induced changes in hydraulic conditions
6170	U1x	11	1	2	3	6	9,848.6	4,809.9	49	2	12.29	7	Area and Structure & Functions in AT and ES - change to positive trend in AT and ES, improve quality in AT and better information on quality from ES	A04 - grazing; A03.03 - abandonment / lack of mowing; E04 - Structures, buildings in the landscape; K01.01 - Erosion
Group 5 - Habitats needs to change from U1- to U1= on Biogeographical level to improve														
9010	U1-	2	0	1	1	2	8,130.0	7,749.5	95	4	2.10	1	Area in SE - stop decline in Area in SE	B02 - Forest and Plantation management & use; J01.03 - lack of fires
4070	U1-	9	0	0	2	2	2,418.8	1,747.3	72	3	2.77	2	Structure & Functions in IT - Improve quality in IT	G02.02 - skiing complex
9050	U1-	2	0	1	0	1	670.0	195.6	29	2	3.43	3	Area in SE - stop decline in Area in SE	B02 - Forest and Plantation management & use
9140	U1-	6	0	0	2	2	491.9	224.6	46	2	4.38	4	Structure & Functions in IT - improve quality in IT	G02.02 - skiing complex
9430	U1-	4	1	1	1	3	1,593.0	959.5	60	3	4.98	5	Structure & Functions in IT - improve quality in IT	B02 - Forest and Plantation management & use; B02.02 - forestry clearance; B06 - grazing in forests/ woodland; J01.01 - burning down; K02 - Biocenotic evolution, succession; L05 - collapse of terrain, landslide; M02 - Changes in biotic conditions
91K0	U1-	4	0	0	3	3	4,156.4	2,114.7	51	3	5.90	6	Structure & Functions in IT - improve quality in IT	B02.04 - removal of dead and dying trees; G01.03 - motorised vehicles
9530	U1-	6	0	0	3	3	640.2	186.8	29	2	10.28	7	Structure & Functions in IT - improve quality in IT	A10 - Restructuring agricultural land holding; B02.04 - removal of dead and dying trees; B02.06 - thinning of tree layer; L09 - fire (natural); G02.02 - skiing complex
92A0	U1-	3	2	2	4	8	35.5	15.7	44	2	18.02	8	Structure & Functions in IT - improve quality in IT	C01.01 - Sand and gravel extraction; G05 - Other human intrusions and disturbances ; J02 - human induced changes in hydraulic conditions
9410	U1-	9	0	1	6	7	17,310.2	6,470.7	37	2	18.73	9	Structure & Functions in IT -	B02.02 - forestry clearance; G01 - Outdoor sports and

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
													improve quality in IT	leisure activities, recreational activities; G02.02 - skiing complex
8230	U1-	7	2	4	5	11	186.9	102.6	55	3	20.05	10	Structure & Functions in IT - improve quality in IT	A04.03 - abandonment of pastoral systems, lack of grazing; G02.02 - skiing complex
7220	U1-	12	4	9	8	21	51.7	50.8	98	4	21.35	11	Structure & Functions in IT - improve quality in IT	A04 - grazing; A07 - use of biocides, hormones and chemicals; A08 - Fertilisation; C01.01 - Sand and gravel extraction; G01.02 - walking, horseriding and non-motorised vehicles; G01.04 - mountaineering, rock climbing, speleology; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); J02 - human induced changes in hydraulic conditions; J02.07 - Water abstractions from groundwater; M01 - Changes in abiotic conditions
3270	U1-	6	5	4	5	14	9.6	5.7	60	3	23.51	12	Structure & Functions in FR and IT - improve quality in FR and IT	C01.01 - Sand and gravel extraction; C03 - Renewable abiotic energy use; E03 - Discharges; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); I01 - invasive non-native species; J02 - human induced changes in hydraulic conditions; J02.03 - Canalisation & water deviation; J02.04.01 - flooding; J02.05 - Modification of hydrographic functioning, general; K01.02 - Silting up; K01.04 - Submersion; L08 - inundation (natural processes)
7110	U1-	9	5	7	7	19	34.0	20.0	59	3	32.28	13	Structure & Functions in IT - improve quality in IT	A04 - grazing; A07 - use of biocides, hormones and chemicals; A08 - Fertilisation; C01 - Mining and quarrying; C01.03 - Peat extraction; E01 - Urbanised areas, human habitation; G01 - Outdoor sports and leisure activities, recreational activities; G02.02 - skiing complex; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); J02 - human induced changes in hydraulic conditions; J02.01.02 - reclamation of land from sea, estuary or marsh; K02 - Biocenotic evolution, succession
6210	U1-	11	2	11	11	24	3,597.8	1,751.5	49	2	49.30	14	Range in IT and SK, Area in ES and IT - stop decline of Range in IT and SK and stop	A03.01 - intensive mowing or intensification; A03.03 - abandonment / lack of mowing; A04.01 - intensive grazing; A04.03 - abandonment of pastoral systems, lack

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
													decline of Area ES and IT	of grazing; A08 - Fertilisation; C01.01 - Sand and gravel extraction; K02 - Biocenotic evolution, succession; K02.02 - accumulation of organic material
9260	U1-	5	1	3	7	11	2,682.7	219.0	8	1	134.76	15	Structure & Functions in IT - improve quality in IT	F04.02 - collection (fungi, lichen, berries etc.); K02 - Biocenotic evolution, succession; K03.03 - introduction of disease (microbial pathogens)
3260	U1-	10	2	4	5	11	929.9	68.7	7	1	148.93	16	Area and Structure & Functions in IT and SI - stop decline in Area and improve quality in IT and SI	A02.01 - agricultural intensification; C03 - Renewable abiotic energy use; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); H02 - Pollution to groundwater (point sources and diffuse sources); J02 - human induced changes in hydraulic conditions; J02.02 - Removal of sediments (mud...)
7210	U1-	6	4	6	4	14	22.7	1.4	6	1	228.13	17	Range, Area and Structure & Functions in FR - stop decrease in Range and Area and improve quality in FR	D01.02 - roads, motorways; E01.03 - dispersed habitation; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); J02.05 - Modification of hydrographic functioning, general; J03 - Other ecosystem modifications; K02 - Biocenotic evolution, succession
3220	U1-	10	2	5	7	14	8,604.0	466.8	5	1	258.04	18	Range, Area and Structure & Functions in FR - stop decrease in Range and Area and improve quality in FR	C01 - Mining and quarrying; C01.01 - Sand and gravel extraction; J02.03 - Canalisation & water deviation; J02.03.02 - canalisation; J02.05 - Modification of hydrographic functioning, general; J02.05.02 - modifying structures of inland water courses; J02.05.05 - small hydropower projects, weirs; J02.06.06 - surface water abstractions by hydro-energy; J02.12 - Dykes, embankments, artificial beaches, general
3240	U1-	9	1	7	7	15	3,843.8	137.6	4	1	419.17	19	Structure & Functions in AT and IT - improve quality in AT and IT	C01.01 - Sand and gravel extraction; C03 - Renewable abiotic energy use; F04.01 - pillaging of floristic stations; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); I01 - invasive non-native species; J02 - human induced changes in hydraulic conditions; J02.03 - Canalisation & water deviation; J02.05 - Modification of hydrographic functioning, general; J02.05.02 - modifying structures of inland water courses; J02.05.05 - small hydropower projects, weirs; J02.06.06 - surface water

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
														abstractions by hydro-energy
Group 6 - Habitats needs to change from U2+ to U1 on Biogeographical level to improve														
No Habitats														
Group 7 - Habitats needs to change from U2= to U2+ on Biogeographical level to improve														
1340	U2=	2	2	2	2	6	0.3	0.2	63	3	9.56	1	Range and Area in SK and Structure & Functions in FR and SK - Change trend to positive in Range and Area in SK and improve quality in FR and SK	A04.03 - abandonment of pastoral systems, lack of grazing
9180	U2=	10	2	2	5	9	1,128.0	427.2	38	2	23.76	2	Structure & Functions in IT - improve quality in IT	A04 - grazing; B02.01.01 - forest replanting (native trees); F03.01.01 - damage caused by game (excess population density)
Group 8 - Habitats needs to change from U2x to U2+ on Biogeographical level to improve														
7150	U2x	7	3	5	7	15	9.6	5.2	54	3	27.59	1	Area and Structure & Function in AT an IT - change trend for Area to positive in AT, improve quality in AT and IT, better information on Area from IT	C01.03 - Peat extraction; D01.02 - roads, motorways; G02.02 - skiing complex; G05.01 - Trampling, overuse; J02.01.02 - reclamation of land from sea, estuary or marsh; J02.05 - Modification of hydrographic functioning, general; K02 - Biocenotic evolution, succession
Group 9 - Habitats needs to change from U2- to U2= on Biogeographical level to improve														
9070	U2-	1	0	2	2	4	5.3	5.0	94	4	4.24	1	Area and Structure & Functions in SE - stop decline in Area and improve quality in SE	A04.03 - abandonment of pastoral systems, lack of grazing
6450	U2-	1	2	2	2	6	7.0	7.0	100	4	6.00	2	Area and Structure & Functions in SE - stop decline in Area and improve quality in SE	A03.03 - abandonment / lack of mowing; A04.03 - abandonment of pastoral systems, lack of grazing; J02.04.02 - lack of flooding; J02.05 - Modification of hydrographic functioning, general
7320	U2-	2	1	2	3	6	539.0	469.0	87	4	6.90	3	Area in SE and Structure & Functions in FI and SE - stop negative trend in Area in SE and improve quality in FI	M01 - Changes in abiotic conditions

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
													and SE	
7240	U2-	7	4	6	6	16	36.4	32.6	90	4	17.87	4	Area in AT, FR and IT - stop decline in Area in AT, FR and IT	A03 - mowing / cutting of grassland; A04 - grazing; A08 - Fertilisation; E06 - Other urbanisation, industrial and similar activities; J02 - human induced changes in hydraulic conditions; J02.06 - Water abstractions from surface waters; K02.01 - species composition change (succession); M01 - Changes in abiotic conditions
6240	U2-	4	4	4	4	12	31.7	14.3	45	2	26.61	5	Range and Area in IT - stop decline of Range and Area in IT	A04.03 - abandonment of pastoral systems, lack of grazing; G01 - Outdoor sports and leisure activities, recreational activities; K02 - Biocenotic evolution, succession; K02.02 - accumulation of organic material
62A0	U2-	3	1	2	5	8	135.7	38.6	28	2	28.15	6	Range and Area in IT - stop decline of Range and Area in IT	A02 - modification of cultivation practices; A02.01 - agricultural intensification; A03.03 - abandonment / lack of mowing; C01 - Mining and quarrying; K02 - Biocenotic evolution, succession
6230	U2-	11	1	7	11	19	4,350.9	2,719.6	63	3	30.40	7	Range in IT and Area in AT, IT and SK - stop decline of Range in IT and Area in AT, IT and SK	A02.01 - agricultural intensification; A03.01 - intensive mowing or intensification; A04 - grazing; A04.03 - abandonment of pastoral systems, lack of grazing; A08 - Fertilisation; B01 - forest planting on open ground; G02.02 - skiing complex; G05.01 - Trampling, overuse; J02.05 - Modification of hydrographic functioning, general; K02 - Biocenotic evolution, succession; K02.03 - eutrophication (natural)
91L0	U2-	3	1	2	5	8	165.3	42.3	26	2	31.27	8	Structure & Functions in IT - improve quality in IT	B02.01 - forest replanting; E06 - Other urbanisation, industrial and similar activities; I01 - invasive non-native species
91H0	U2-	4	2	2	3	7	216.9	46.4	21	2	32.75	9	Structure & Functions in IT - improve quality in IT	B06 - grazing in forests/ woodland; B07 - Forestry activities not referred to above; D01.02 - roads, motorways; G01 - Outdoor sports and leisure activities, recreational activities; I01 - invasive non-native species; J01.01 - burning down; K02.01 - species composition change (succession)
6410	U2-	11	2	10	12	24	1,978.1	1,359.5	69	3	34.92	10	Range in IT, Area in AT, FR, IT and SI - stop decline in	A02 - modification of cultivation practices; A02.01 - agricultural intensification; A02.03 - grassland removal for

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
													Range in IT and Area in AT, FR, IT and SI	arable land; A03.03 - abandonment / lack of mowing; A04.03 - abandonment of pastoral systems, lack of grazing; A07 - use of biocides, hormones and chemicals; A08 - Fertilisation; A09 - Irrigation; B01 - forest planting on open ground; C01 - Mining and quarrying; E01 - Urbanised areas, human habitation; J02 - human induced changes in hydraulic conditions; J02.01 - Landfill, land reclamation and drying out, general; J02.07 - Water abstractions from groundwater; K02 - Biocenotic evolution, succession
9160	U2-	3	3	3	6	12	132.2	43.0	33	2	36.88	11	Range, Area and Structure & Functions in IT - stop decline in Range and Area and improve quality in IT	B02 - Forest and Plantation management & use; B02.04 - removal of dead and dying trees; B03 - forest exploitation without replanting or natural regrowth; G01 - Outdoor sports and leisure activities, recreational activities; M02.01 - habitat shifting and alteration
6270	U2-	1	0	2	2	4	5.0	0.4	8	1	50.00	12	Area and Structure & Functions in SE - stop decline in Area and improve quality in SE	A04.03 - abandonment of pastoral systems, lack of grazing
91F0	U2-	3	1	3	4	8	42.3	6.7	16	1	50.85	13	Range, Area and Structure & Functions in IT - stop decline in Range and Area and improve quality in IT	B02 - Forest and Plantation management & use; B02.01 - forest replanting; D01 - Roads, paths and railroads; F03 - Hunting and collection of wild animals (terrestrial); I01 - invasive non-native species; J02 - human induced changes in hydraulic conditions
8340	U2-	7	11	13	12	36	1,328.5	843.9	64	3	56.67	14	Change climate change globally	G02.02 - skiing complex; M01 - Changes in abiotic conditions; M01.01 - temperature changes (e.g. rise of temperature & extremes); M01.02 - droughts and less precipitations
3230	U2-	10	9	11	8	28	47.1	21.1	45	2	62.55	15	Area in FR and Structure & Functions in IT - stop decline in Area in FR and improve quality in IT	C01.01 - Sand and gravel extraction; C03 - Renewable abiotic energy use; D01 - Roads, paths and railroads; J02 - human induced changes in hydraulic conditions; J02.03 - Canalisation & water deviation; J02.05 - Modification of hydrographic functioning, general; J02.06.06 - surface water abstractions by hydro-energy; J02.12 - Dykes, embankments, artificial beaches, general; J02.15 - Other

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
														human induced changes in hydraulic conditions; L08 - inundation (natural processes)
6520	U2-	11	5	11	13	29	5,199.9	2,321.5	45	2	64.96	16	Area in IT and PL - stop decline in Area in IT and PL	A01 - Cultivation; A02 - modification of cultivation practices; A02.01 - agricultural intensification; A02.03 - grassland removal for arable land; A03 - mowing / cutting of grassland; A03.01 - intensive mowing or intensification; A03.03 - abandonment / lack of mowing; A04 - grazing; A08 - Fertilisation; J02 - human induced changes in hydraulic conditions; K02 - Biocenotic evolution, succession
91E0	U2-	12	5	9	9	23	1,024.8	325.0	32	2	72.53	17	Range in IT, Area and Structure & Functions in AT and IT - stop decline in Range in IT and Area in AT and IT, and improve quality in AT and IT	B02.01 - forest replanting; B02.02 - forestry clearance; B02.04 - removal of dead and dying trees; B07 - Forestry activities not referred to above; D01.01 - paths, tracks, cycling tracks; D01.02 - roads, motorways; G01 - Outdoor sports and leisure activities, recreational activities; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); I01 - invasive non-native species; J02 - human induced changes in hydraulic conditions; J02.02.01 - dredging/ removal of limnic sediments; J02.03 - Canalisation & water deviation; J02.05.02 - modifying structures of inland water courses; J02.06 - Water abstractions from surface waters; J02.10 - management of aquatic and bank vegetation for drainage purposes; J02.15 - Other human induced changes in hydraulic conditions; K01.01 - Erosion; K04.01 - competition (flora)
6510	U2-	10	3	9	8	20	4,345.6	1,023.3	24	2	84.93	18	Range in IT, Area and Structure & Functions in ES and IT - stop decline in Range in IT and Area in ES and IT	A01 - Cultivation; A02 - modification of cultivation practices; A02.01 - agricultural intensification; A02.03 - grassland removal for arable land; A03.01 - intensive mowing or intensification; A03.03 - abandonment / lack of mowing; A04 - grazing; A08 - Fertilisation
3150	U2-	11	3	6	7	16	546.2	59.4	11	1	147.04	19	Structure & Functions in IT - improve quality in IT	A07 - use of biocides, hormones and chemicals; A08 - Fertilisation; H01 - Pollution to surface waters (limnic & terrestrial, marine & brackish); H02 - Pollution to groundwater (point sources and diffuse sources); J02 -

Habitat	CS	n° MS	R	A	S&F	Total	Area (km²)	Area (N2K)	N2K cover (%)	Cover class	LHF index	Rank	Need for improvement	Important threats ('high' only)
														human induced changes in hydraulic conditions
Group 10 - Habitats needs to change from XX to U1+ or U2+ on Biogeographical level to improve														
9240	XXx	1	0	1	1	2	103.0	74.0	72	3	2.78		More information from ES	L09 - fire (natural)
3250	XXx	1	1	1	1	3	8.0	8.0	100	4	3.00		More information from FR	G01 - Outdoor sports and leisure activities, recreational activities; I01 - invasive non-native species; J02 - human induced changes in hydraulic conditions; M01 - Changes in abiotic conditions
3170	XXx	1	1	1	1	3	9.5	9.5	100	4	3.00		More information from IT	NO HIGH
3280	XXx	1	1	1	1	3	16.5	16.5	100	4	3.01		More information from IT	NO HIGH
8130	XX=	3	0	1	2	3	912.7	443.7	49	2	6.17		More information from ES	M01 - Changes in abiotic conditions; M02 - Changes in biotic conditions
6220	XXx	3	1	2	3	6	43.8	40.4	92	4	6.50		More information from IT	A04.01 - intensive grazing; A10 - Restructuring agricultural land holding
91AA	XXx	2	1	1	2	4	142.2	43.7	31	2	13.01		More information from IT	B06 - grazing in forests/ woodland; J01.01 - burning down; K02.01 - species composition change (succession)
8150	XXx	4	2	3	2	7	2.4	0.8	31	2	22.25		More information from AT and FR	K02 - Biocenotic evolution, succession
7120	XXx	7	4	5	8	17	25.7	11.8	46	2	36.90		More information from AT and IT	A04 - grazing; A11 - Agriculture activities not referred to above; C01.03 - Peat extraction; I02 - problematic native species; J02 - human induced changes in hydraulic conditions; J02.01.02 - reclamation of land from sea, estuary or marsh; J03.02 - anthropogenic reduction of habitat connectivity; K02 - Biocenotic evolution, succession