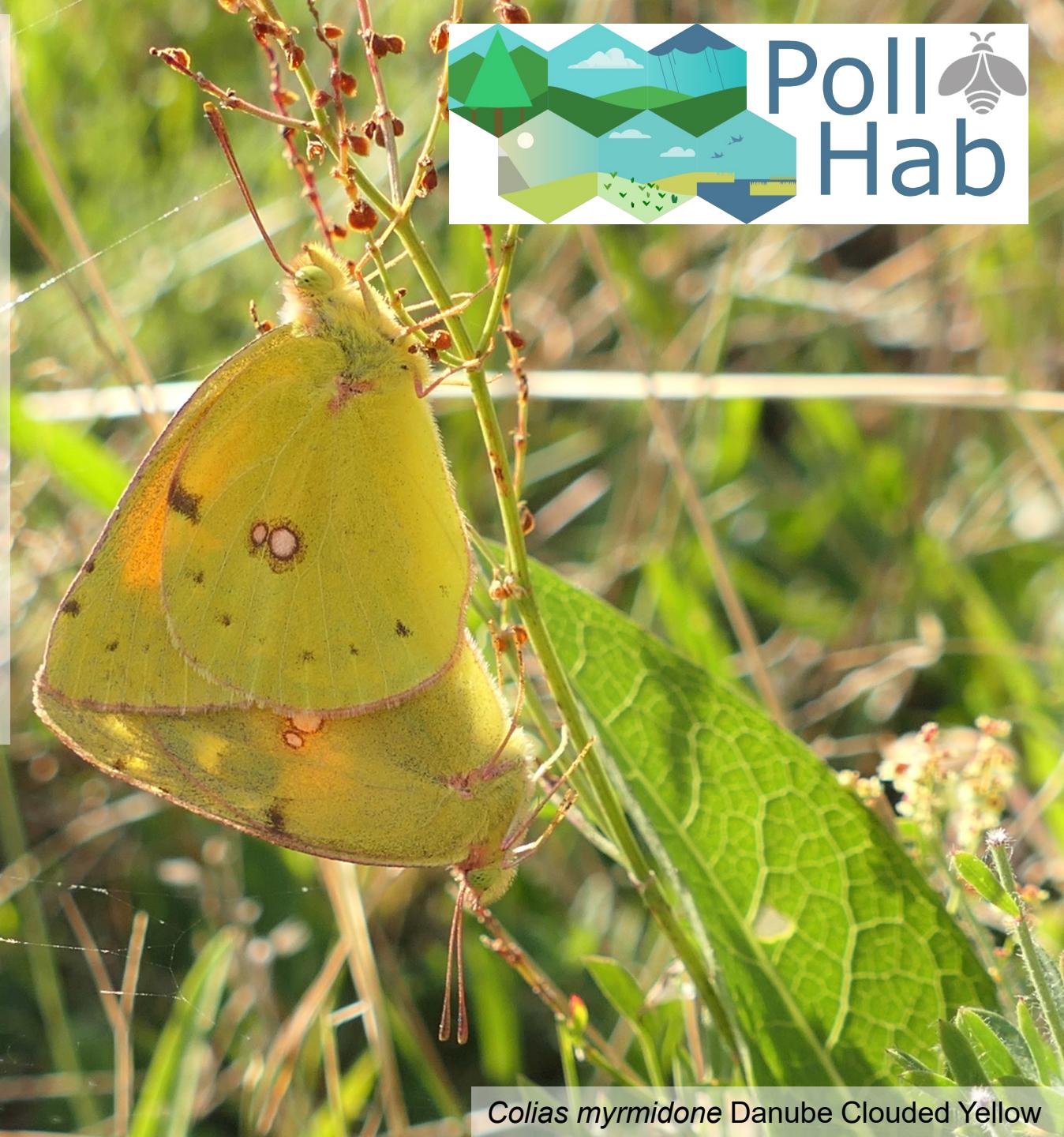


# Pollinators typical of habitats protected under the Habitats Directive



*Colias myrmidone* Danube Clouded Yellow

# Project overview



EU Pollinators Initiative includes Action 4.2. *“The Commission will identify pollinators typical of habitats protected under the Habitats Directive. Member States should ensure that the measures implemented for these habitats, in particular under Natura 2000 management plans, take pollinator conservation into account. Member States should secure adequate funding for those measures”.*



# Project overview

Main objective: identify 10 typical pollinator species for each protected Annex 1 habitat type



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA

Lorenzo Marini

RESEARCH INSTITUTE  
NATURE AND FOREST

Dirk Maes



Jurriën van Deijk



Sam Ellis  
Aidan Whitfield

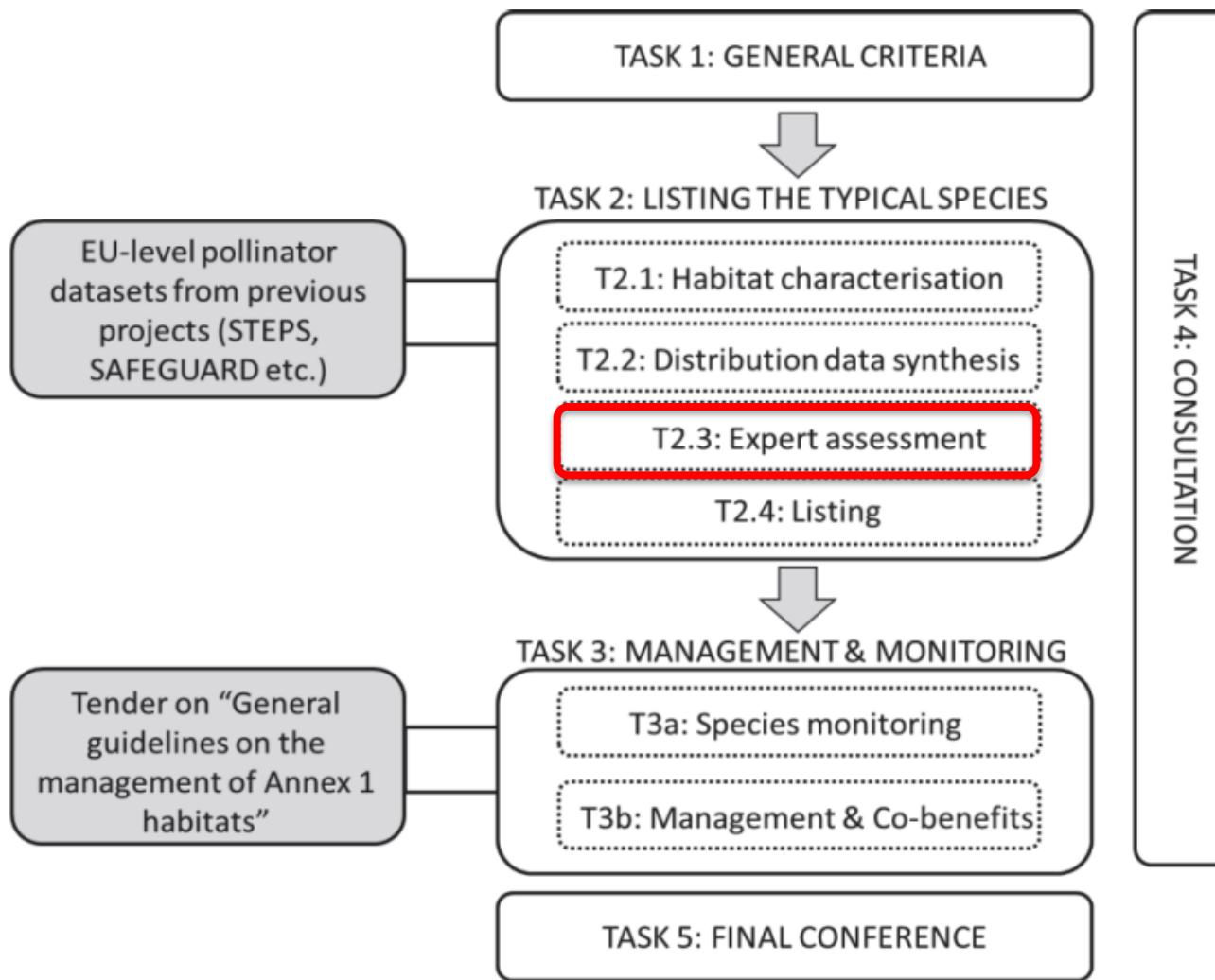
Other project leads:

Wild Bees – Denis  
Michez (University  
of Mons)

Hoverflies – Ante  
Vuijc (University of  
Novi Sad)



# Organisation of the work



Two-year  
project

Start date: 4<sup>th</sup>  
Dec 2024

End date: 3<sup>rd</sup>  
Dec 2026



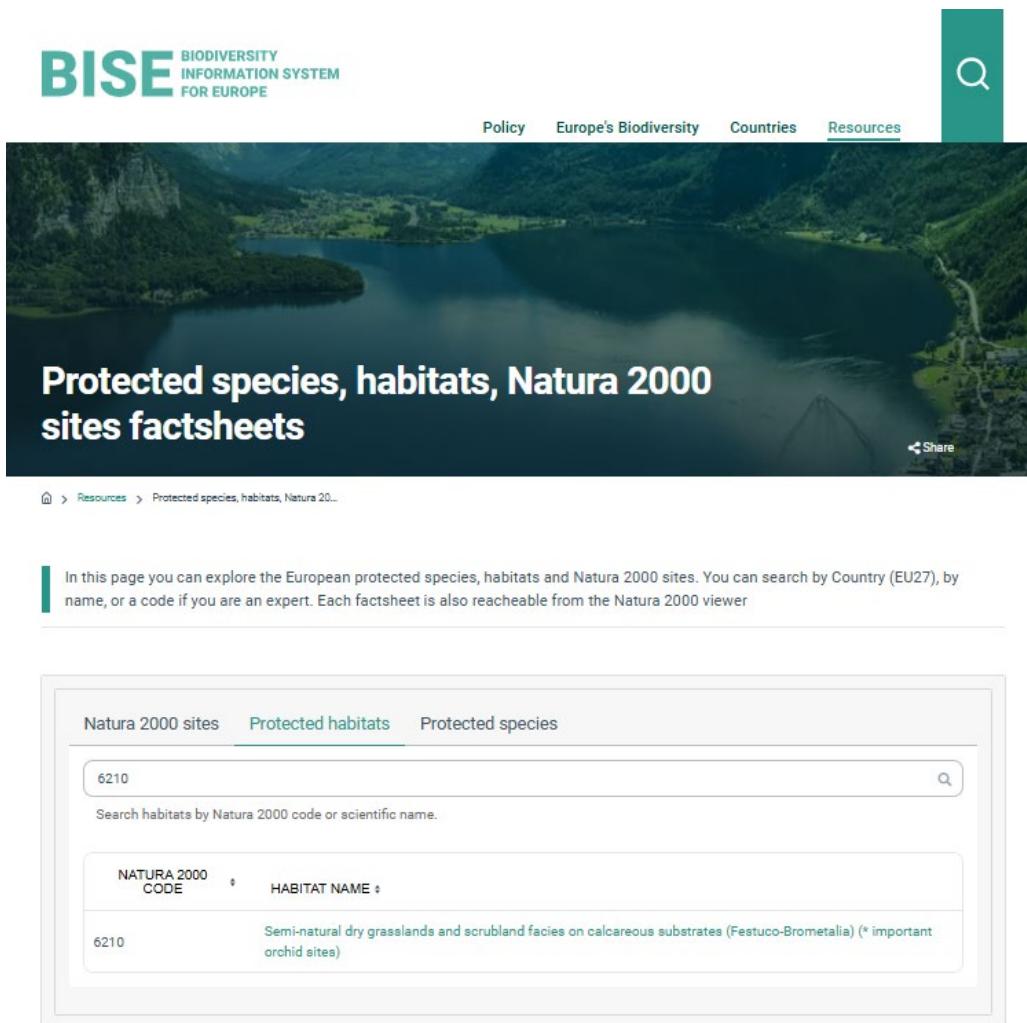
# Annex 1 habitats

233 Annex 1 habitats:

1. Coastal and halophytic habitats (28)
2. Coastal sand dunes and inland dunes (21)
3. Freshwater habitats (20)
4. Temperate heath and scrub (12)
5. Sclerophyllous scrub (matorral) (13)
6. Natural and semi-natural grasslands (32)
7. Raised bogs, mires and fens (12)
8. Rocky habitats and caves (14)
9. Forests (81)



# Annex 1 habitat resources



**BISE** BIODIVERSITY INFORMATION SYSTEM FOR EUROPE

Policy Europe's Biodiversity Countries Resources

Protected species, habitats, Natura 2000 sites factsheets

Share

Resources > Protected species, habitats, Natura 200...

In this page you can explore the European protected species, habitats and Natura 2000 sites. You can search by Country (EU27), by name, or a code if you are an expert. Each factsheet is also reachable from the Natura 2000 viewer

Natura 2000 sites Protected habitats Protected species

6210

Search habitats by Natura 2000 code or scientific name.

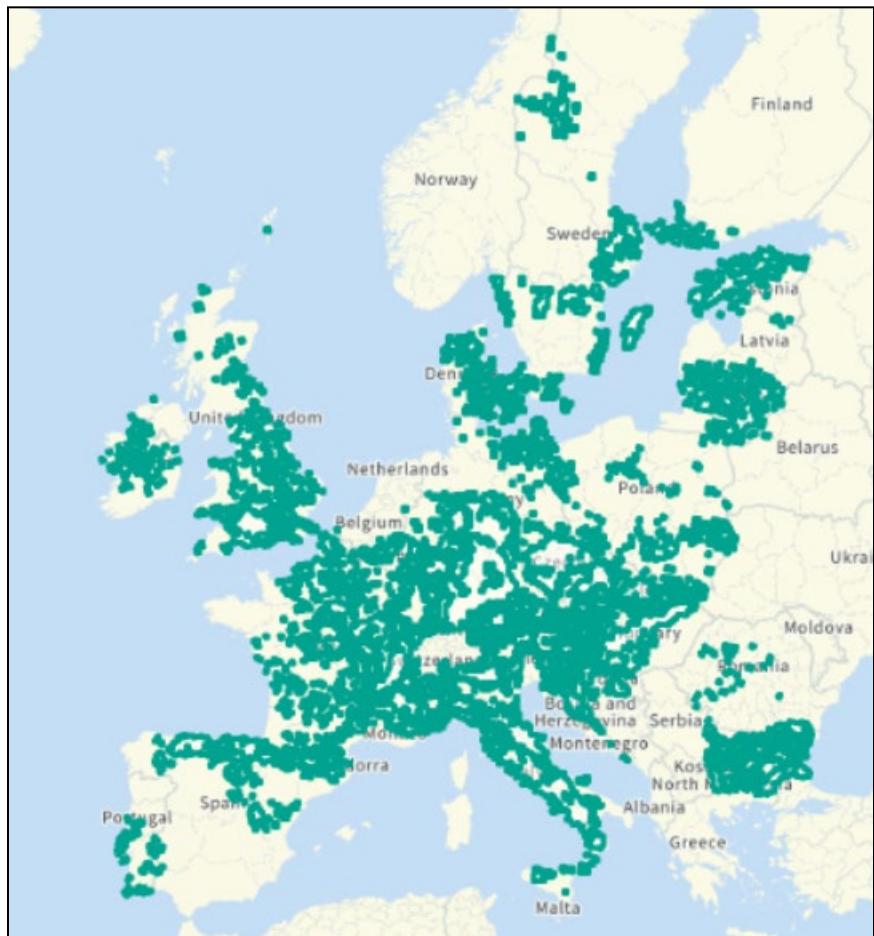
NATURA 2000 CODE HABITAT NAME

6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (\* important orchid sites)

**BISE Biodiversity Information System for Europe:**



## Annex 1 habitat resources



# Annex 1 habitat resources



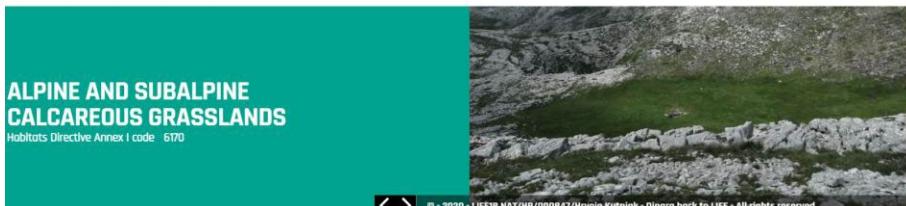
The screenshot shows the EUNIS website interface. At the top, there is a search bar and a 'A-Z Glossary' link. Below the search bar, there are links for 'Topics', 'Countries', 'Data and maps', 'Indicators', 'Publications', 'Media', and 'About us'. The 'About us' link includes a note: 'The EEA is an agency of the European Union' and the European Union flag. The main content area has a blue header with 'EUNIS Home', 'Species', 'Habitat types', 'Sites', 'Global queries', 'References', and 'About EUNIS'. A green box at the top of the content area states: 'Natura 2000 related content is now shown on the Biodiversity Information System for Europe, BISE. Please go to [BISE](#) or use the Natura 2000 map viewer for the latest information.' Below this, a breadcrumb navigation shows 'Habitat Annex I Directive hierarchical view > NATURAL AND SEMI-NATURAL GRASSLAND FORMATIONS > Semi-natural dry grasslands and scrubland facies > Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (\* important orchid sites)'. The main title is 'Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (\* important orchid sites)'. The 'Description (English)' section contains a detailed text about the habitat, mentioning 'Festuco-Brometalia', 'Xerobromion', and 'Mesobromion'. It also specifies that the habitat is considered a priority for 'important orchid sites'. Below this, there is a 'Quick facts' section with tables for 'EU Habitats Directive' (Annex I habitat type: code 6210), 'Habitat type' (Not priority), and 'Natura 2000 sites' (4249). The 'Distribution', 'Conservation status', 'Species mentioned in habitat description', 'Natura 2000 sites', 'Legal status', 'Relation to habitat classifications', and 'Other resources' sections are listed as collapsed sections with small blue square icons.

## EUNIS European Nature Information System:

[https://eunis.eea.europa.eu/habitats-annex1-browser.jsp?expand=#level\\_10001](https://eunis.eea.europa.eu/habitats-annex1-browser.jsp?expand=#level_10001)

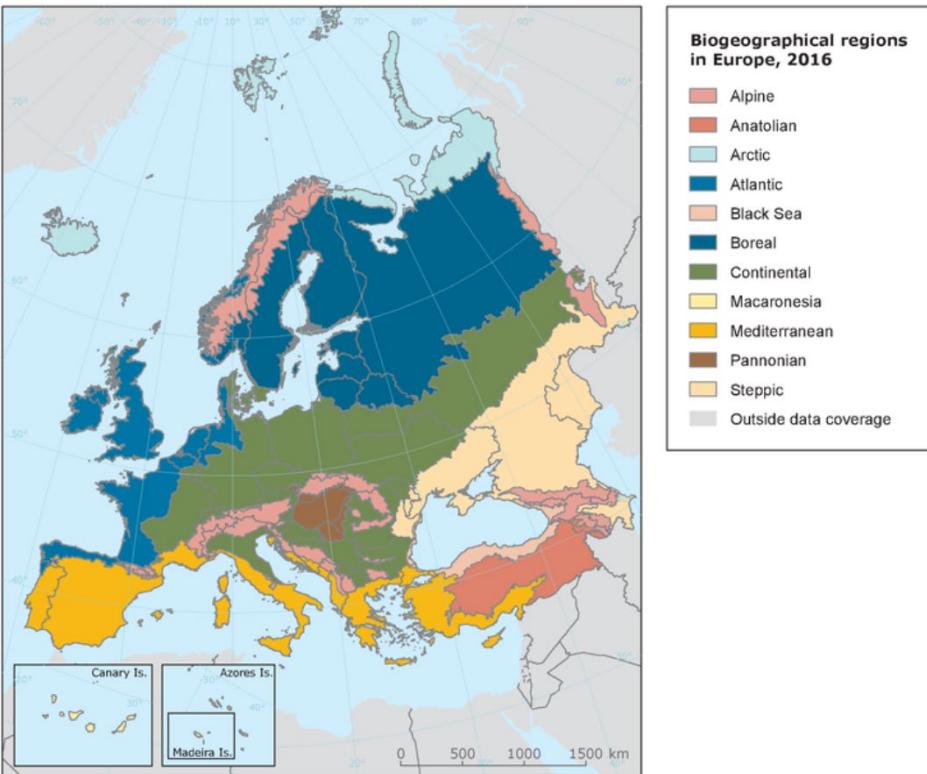


# Annex 1 habitats and geographical distribution



## Distribution

This habitat occurs in 13 EU member states



For each Annex 1 habitat: ID typical species separately for each biogeographical region



# Habitat and biogeographical region matrix

ANNEX 1 HABITATS		BIOGEOGRAPHICAL REGIONS							
		ALP	ATL	BLS	BOR	CON	MED	PAN	STE
6110	Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi	439	134	17	55	1294	925	47	
6120	Xeric sand calcareous grasslands		158	1	95	3324	28	10	1
6130	Calaminarian grasslands of the Violetalia calaminariae	29	109			82	43		
6140	Siliceous Pyrenean Festuca eskia grasslands	98							
6150	Siliceous alpine and boreal grasslands	1224	215		50	32			
6160	Oro-Iberian Festuca indigesta grasslands		93					220	
6170	Alpine and subalpine calcareous grasslands	1353	214			73	744		
6190	Rupicolous pannonic grasslands (Stipo-Festucetalia pallentis)	102				162		183	
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important) (Festuco-Brometalia)	1405	1763	53	893	4527	1487	461	
6220	Pseudo-steppe with grasses and annuals of the Thero-Brachypodietea	44	298	43		358	5586		
6230	Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas in Central Europe)	1400	1271		860	2277	548	13	
6240	Sub-Pannonic steppic grasslands	126	12	2		498		302	
6250	Pannonic loess steppic grasslands					215		567	
6260	Pannonic sand steppes					13	2	371	
6270	Fennoscandian lowland species-rich dry to mesic grasslands	69			3562	188			
6280	Nordic alvar and precambrian calcareous flatrocks				252	11			
62A0	Eastern sub-mediterranean dry grasslands (Scorzoneratalia villosae)	168		15		230	563		
62B0	Serpentinophilous grassland of Cyprus						9		
62C0	Ponto-Sarmatic steppes			21		52			29
62D0	Oro-Moesian acidophilous grasslands	93				26	5		
6310	Dehesas with evergreen Quercus spp						2173		
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	857	1958	3	1913	3782	962	412	2
TOTAL NUMBER OF ASSESSMENTS		118	110	52	81	155	148	56	25

Total: 745 – but 106 are freshwater and rocky habitats



# What is a typical species?

## WILD BEES

## SYRPHIDS

## MOTHS AND BUTTERFLIES

Criterion A: Species which occur regularly at a high constancy

SubA1 Species and habitat distribution should overlap at least within a biogeographical region

AND

SubA2 Species should have a strong functional link with a plant species that regularly occur in the habitat

OR

SubA3 Species nest in the habitat

OR

Sub A4 During larval stage, species use microhabitats occurring in the habitat

AND

Criterion B: Species which are good indicators of favourable habitat quality and/or a wider group of other species with specific habitat requirements

(AND)

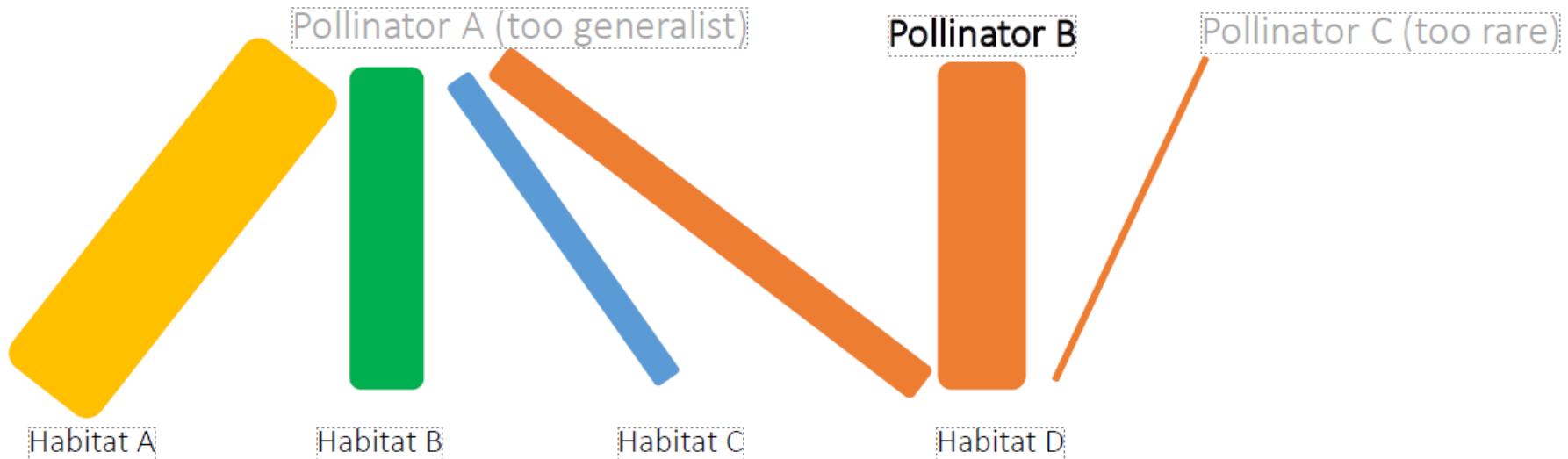
Criterion C. Species which can be monitored relatively easily by non-destructive and/or inexpensive means should be favoured

At least 10 typical species



# Criterion A: distribution overlap

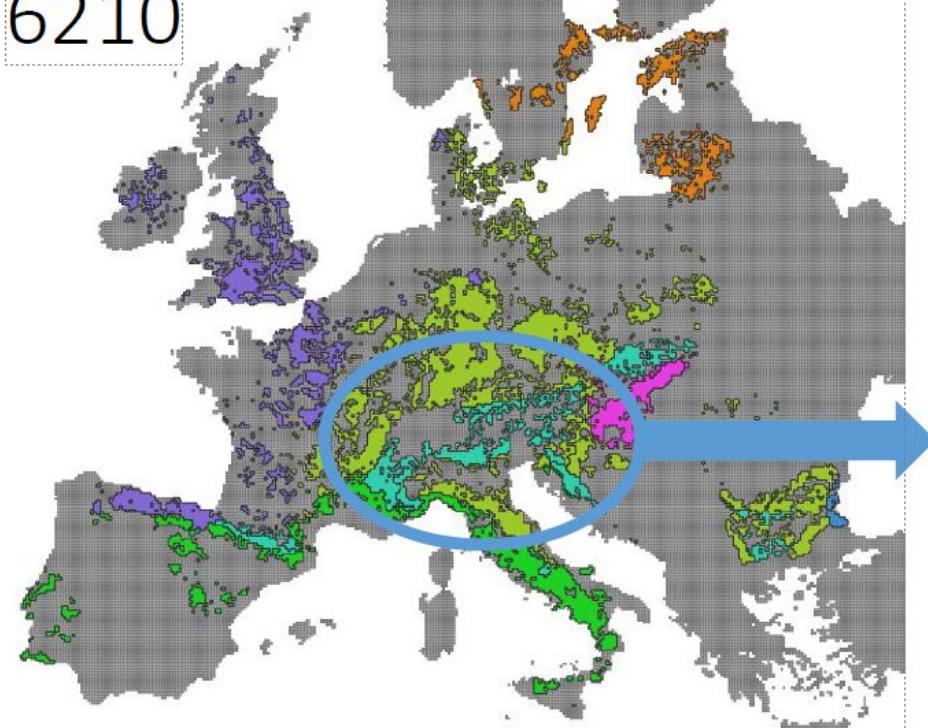
Species which occur regularly at a high constancy (i.e. are 'characteristic') in a habitat type or at least in a major subtype or variant of a habitat type



# Criterion A Sub A1: distribution overlap



6210



50%

*Andrena\_alutacea*  
*Andrena\_combinata*  
*Andrena\_congruens*  
*Andrena\_curvungula*  
*Andrena\_humilis*  
*Andrena\_polita*  
*Andrena\_russula*  
*Andrena\_saxorica*  
*Anthidium\_oblongatum*  
*Bombus\_argillaceus*  
*Bombus\_barbutellus*  
*Bombus\_humilis*  
*Bombus\_mesomelas*  
*Bombus\_mucidus*  
*Bombus\_ruderarius*  
*Bombus\_soroeensis*  
*Bombus\_wurflenii*  
*Ceratina\_chalybea*  
*Chelostoma\_distinctum*  
*Chelostoma\_foveolatum*  
*Dufourea\_minuta*  
*Halictus\_maculatus*  
*Halictus\_sexguttatus*  
*Hoplitis\_adunca*  
*Hoplitis\_dalmatica*  
*Hoplitis\_mitic*  
*Hoplitis\_villosa*  
*Lasioglossum\_aeratum*  
*Megachile\_ligniseca*  
*Megachile\_pyrenaea*  
*Nomada\_armata*  
*Nomada\_braunsi*  
*Nomada\_errans*  
*Nomada\_facilis*

75%

*Bombus\_barbutellus*  
*Bombus\_humilis*  
*Bombus\_ruderarius*  
*Bombus\_wurflenii*  
*Nomada\_braunsi*

90%

*Bombus\_humilis*





12:20 31/JUL/2016

# Criterion A Sub A2, A3 and A4

Sub A2: Functional link with plants

{

- Butterfly/moth host plants
- Oligolectic bees
- Syrphid larvae associated with plant roots, ...



Sub A3: Nesting



Sub A4: Microhabitats (e.g. deadwood, cavities, soil organic matter)



# Criterion Sub A2: functional link with plants

Species	Level	Host Plant
Aglais_io	Species	<i>Humulus lupulus</i>
Aglais_io	Species	<i>Urtica dioica</i>
Aglais_urticae	Species	<i>Urtica dioica</i>
Agriades_aquilo	Species	<i>Empetrum nigrum</i>
Agriades_aquilo	Species	<i>Saxifraga aizoides</i>
Agriades_aquilo	Species	<i>Saxifraga oppositifolia</i>
Agriades_dardanus	Species	<i>Androsace kosopoljanskii</i>
Agriades_dardanus	Species	<i>Androsace villosa</i>
Agriades_glandon	Species	<i>Androsace obtusifolia</i>
Agriades_glandon	Species	<i>Androsace chamaejasme</i>
Agriades_glandon	Species	<i>Vitaliana primuliflora</i>

Butterfly larval hostplant spreadsheet  
(source: European Red List)



# Criterion Sub A2: functional link with plants

Region	Habitat ID	Group	Phylum	Order	Family	Genus	Species
ATL	6210	Animals	Arthropoda	Lepidoptera	Hesperiidae	Erynnis	Erynnis tages
ATL	6210	Animals	Arthropoda	Lepidoptera	Hesperiidae	Pyrgus	Pyrgus cirsii
ATL	6210	Animals	Arthropoda	Lepidoptera	Hesperiidae	Thymelicus	Thymelicus sylvestris
ATL	6210	Animals	Arthropoda	Lepidoptera	Lycaenidae	Cupido	Cupido minimus
ATL	6210	Animals	Arthropoda	Lepidoptera	Lycaenidae	Polyommatus	Polyommatus dorylas
ATL	6210	Animals	Arthropoda	Lepidoptera	Nymphalidae	Chazara	Chazara briseis
ATL	6210	Fungi	Ascomycota	Lecanorales	Cladoniaceae	Cladonia	Cladonia furcata
ATL	6210	Fungi	Ascomycota	Lecanorales	Cladoniaceae	Cladonia	Cladonia rangiformis
ATL	6210	Fungi	Ascomycota	Lecanorales	Psoraceae	Psora	Psora decipiens
ATL	6210	Fungi	Ascomycota	Peltigerales	Peltigeraceae	Peltigera	Peltigera rufescens
ATL	6210	Animals	Chordata	Passeriformes	Emberizidae	Emberiza	Emberiza citrinella
ATL	6210	Animals	Chordata	Passeriformes	Motacillidae	Anthus	Anthus trivialis
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Bunium	Bunium bulbocastanum
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Bupleurum	Bupleurum falcatum
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Bupleurum	Bupleurum longifolium
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Daucus	Daucus carota
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Eryngium	Eryngium bourgatii
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Eryngium	Eryngium campestre
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Laser	Laser trilobum
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Laserpitium	Laserpitium latifolium
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Libanotis	Libanotis pyrenaica
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Peucedanum	Peucedanum cervaria
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Peucedanum	Peucedanum officinale
ATL	6210	Plants	Streptophyta	Apiales	Apiaceae	Peucedanum	Peucedanum oreoselinum

Annex 1 habitat typical plant species: includes some animals



# Criterion Sub A2: functional link with plants

Region	Habitat ID	Group	Phylum	Order	Family	Genus	Species
ALP	4060	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria chariclea
ALP	4060	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria napaea
ALP	4060	Animals	Arthropoda	Lepidoptera	Nymphalidae	Euphydryas	Euphydryas iduna
ALP	6150	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria chariclea
ALP	6150	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria napaea
ALP	6150	Animals	Arthropoda	Lepidoptera	Nymphalidae	Erebia	Erebia pandrose
ALP	6150	Animals	Arthropoda	Lepidoptera	Nymphalidae	Euphydryas	Euphydryas iduna
ALP	6150	Animals	Arthropoda	Lepidoptera	Nymphalidae	Oeneis	Oeneis bore
ALP	6150	Animals	Arthropoda	Lepidoptera	Nymphalidae	Oeneis	Oeneis norna
ALP	6170	Animals	Arthropoda	Lepidoptera	Lycaenidae	Albulina	Albulina orbitulus
ALP	6170	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria chariclea
ALP	6170	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria napaea
ALP	6170	Animals	Arthropoda	Lepidoptera	Nymphalidae	Euphydryas	Euphydryas iduna
ALP	6170	Animals	Arthropoda	Lepidoptera	Pieridae	Colias	Colias hecla
ALP	6170	Animals	Arthropoda	Lepidoptera	Pieridae	Colias	Colias werdandi
ALP	6190	Animals	Arthropoda	Lepidoptera	Papilionidae	Parnassius	Parnassius apollo
ALP	6210	Animals	Arthropoda	Lepidoptera	Lycaenidae	Aricia	Aricia artaxerxes
ALP	6230	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria euphrosyne
ALP	6230	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria selene
ALP	7310	Animals	Arthropoda	Lepidoptera	Hesperiidae	Pyrgus	Pyrgus centaureae
ALP	7310	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria aquilonaris
ALP	7310	Animals	Arthropoda	Lepidoptera	Nymphalidae	Boloria	Boloria freija
ALP	7310	Animals	Arthropoda	Lepidoptera	Nymphalidae	Clossiana	Clossiana frigga
ALP	7310	Animals	Arthropoda	Lepidoptera	Nymphalidae	Proclossiana	Proclossiana eunomia

## Annex 1 habitat typical butterfly species extracted



# Criterion Sub A4: use of microhabitats

**Larval host plants:** Specific plant species for egg-laying and larval food: some species select larval hostplants with specific growth forms (e.g. flowering, in proximity to bare ground)

**Ant nests:** Hosts for myrmecophilous species - obligate for *Phengaris* spp. and facultative for other Lycaenids

**Flowering plants:** Provide nectar as a primary food source for adults

**Structural variation:** Different vegetation heights provide different microclimates and egg-laying sites: especially important in grassland habitats

**Bare ground patches:** Used for thermoregulation (basking), male territorial behaviour and hostplant selection

**Open sunny spots:** Important for thermoregulation and feeding

**Microtopography:** Refuges under extreme weather conditions (e.g. flooding, drought):

**Aspect variation:** Different aspects can provide suitable habitat under extreme weather conditions: in drought conditions north-facing slopes can support larval hostplants more likely to be in a suitable condition

**Leaf litter and other decaying vegetation:** Habitat for overwintering stages

**Decaying organic matter:** Some species are attracted to fermenting fruits or carrion.

**Tall grasses and shrubs:** Offers shelter from predators/harsh weather and overwintering sites.

**Understorey vegetation:** Larval host plants and adult nectar sources

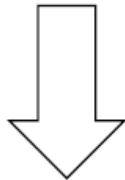
**Canopy gaps and edges:** Larval host plants and adult nectar sources in sunny situations

**Tree trunk sap flows and aphids:** some adult butterflies feed on tree sap or honeydew



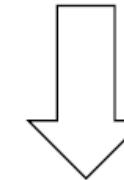
# Criterion Sub B1 and Sub B2

Sub B1 Indicator of habitat quality AND/OR Sub B2 indicator of wider group of species

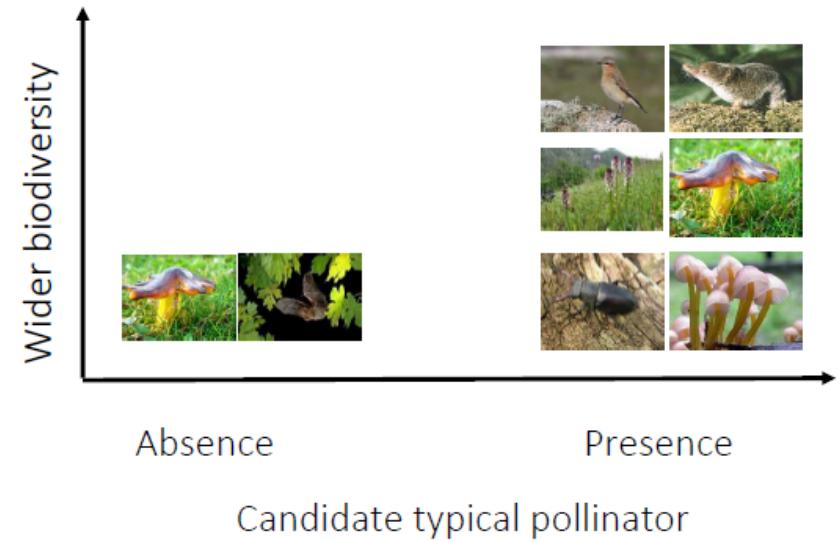


Sensitivity to the major pressures

Candidate	Pressure A	Pressure B	Pressure C
Species A	→	→	→
Species B	↘	↘	↘
Species C	?	?	?
Species D	↘	↘	?
Species E	?	?	?



Correlation with other sensitive species



# Criterion C: ease of monitoring

Criterion C: Species that could be easily monitored SHOULD be preferred

Potential biases towards  
more conspicuous species



# Uncertainty measures

Listing

Habitat 6210



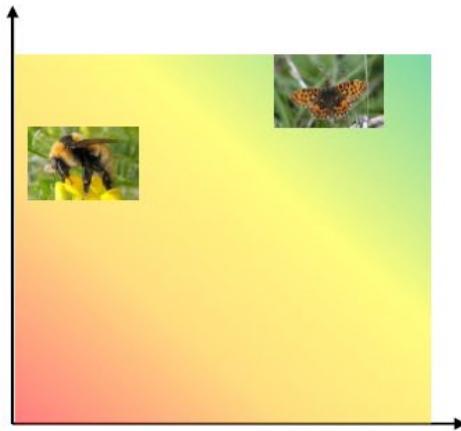
Typical



	Sub A1	Sub A2	Sub A3	Sub A4	Sub B1	Sub B2	C
77%		●			●	●	●
81%			●	●		●	●

Uncertainty measures

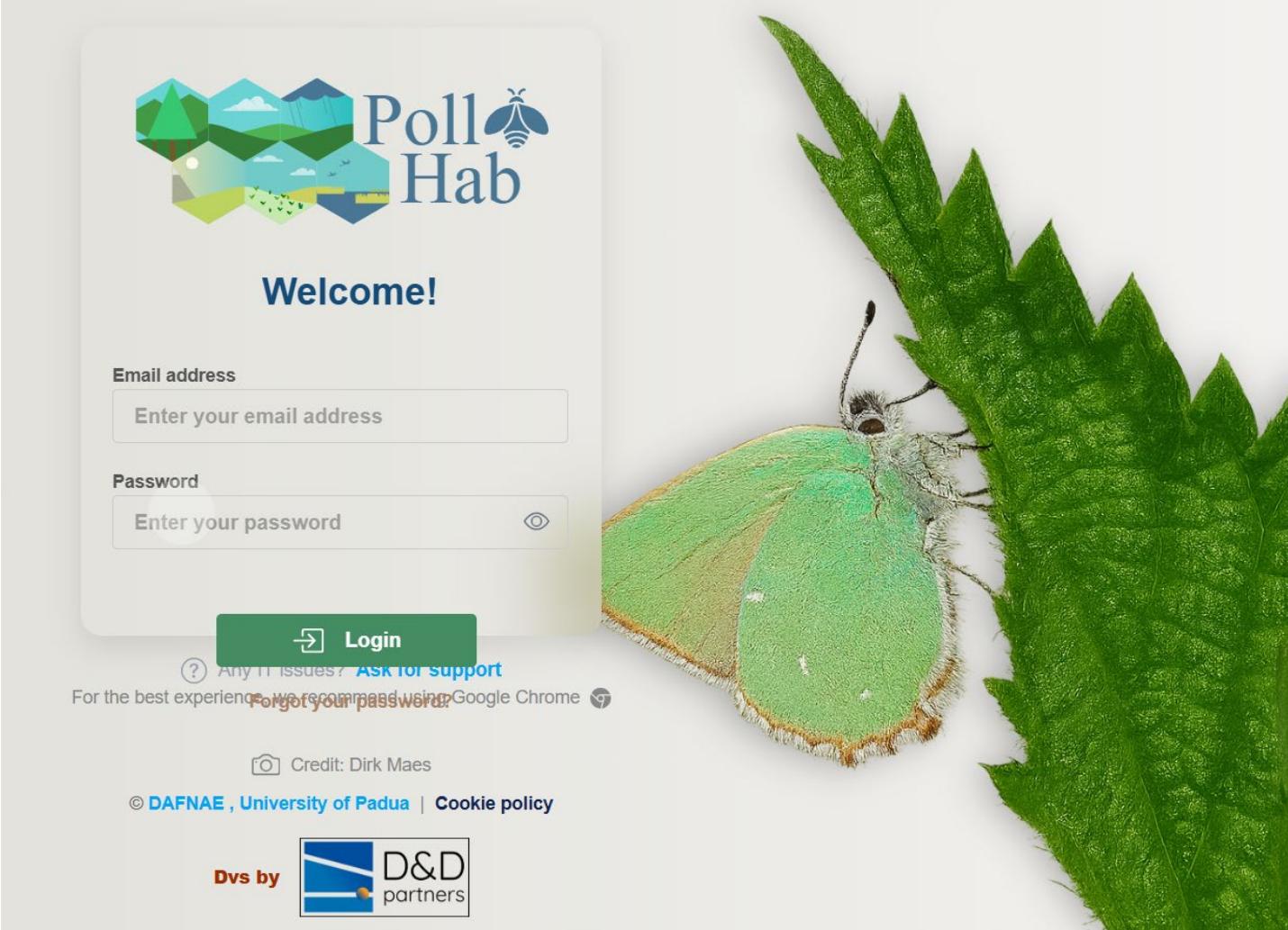
Level of agreement  
between experts



Quantity and quality of the  
evidence (self reported)



Poll Hab web tool: <https://application.pollhab.eu/login>



The image shows the Poll Hab web tool login page on the left and a close-up photograph of a green butterfly on a leaf on the right.

**Poll Hab** web tool login page:

- Welcome!**
- Email address**:
- Password**:  
- Login** button (green background, white text)
- Any IT issues?** [ASK for support](#)
- For the best experience, we recommend using Google Chrome** 
- Forgot your password?**
-  Credit: Dirk Maes
- [© DAFNAE, University of Padua](#) | [Cookie policy](#)
- Dvs by** 

**Green butterfly on a leaf**: A close-up photograph of a green butterfly with a gold edge on its wings, resting on a large green leaf.



# Poll Hab web tool: <https://application.pollhab.eu/login>

←



## Submit OTP Here!

Enter the 6-digit code received via email:

**Verify OTP**

ⓘ Any IT issues? [Ask for support](#)  
Forgot your code? [RESEND](#)

For the best experience, we recommend using Google Chrome

 Credit: Dirk Maes

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Dvs by 





# Poll Hab web tool: experts



☰

## Incoming News

**Publish Date:** 24/06/2025 | **Publisher:** lorenzo.marini@unipd.it

**EXPERT ASSESSMENT IS OPEN!**

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?

Account

**Dashboard** **Experts** **Habitat Code**

Search experts by name/surname

Taxon: BUTTERFLIES | Completed Assessments: 143 | Draft Assessments: 0

**Completed Assessments** **Draft Assessments**

 ATL 1210 Sam Ellis 02/07/2025
 ATL 2110 Sam Ellis 01/07/2025
 ATL 2120 Sam Ellis 01/07/2025
 ATL 1220 Sam Ellis 02/07/2025
 ATL 2140 Sam Ellis

← Page 1 of 1 →

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Dvs by 



# Poll Hab web tool: dashboard

 **Dashboard**    **Experts**    **Habitat Code**

## Select Taxon

BEES

MOTHS

**BUTTERFLIES**

HOVERFLIES

Currently selected: **Butterflies**

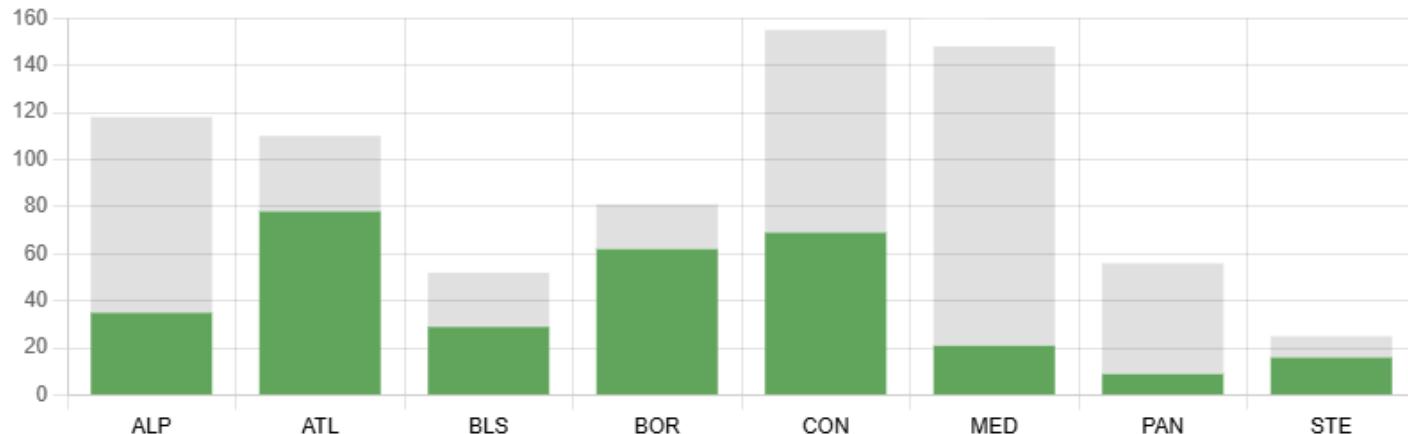
Total no. of assessments:

319 (30.11.25)

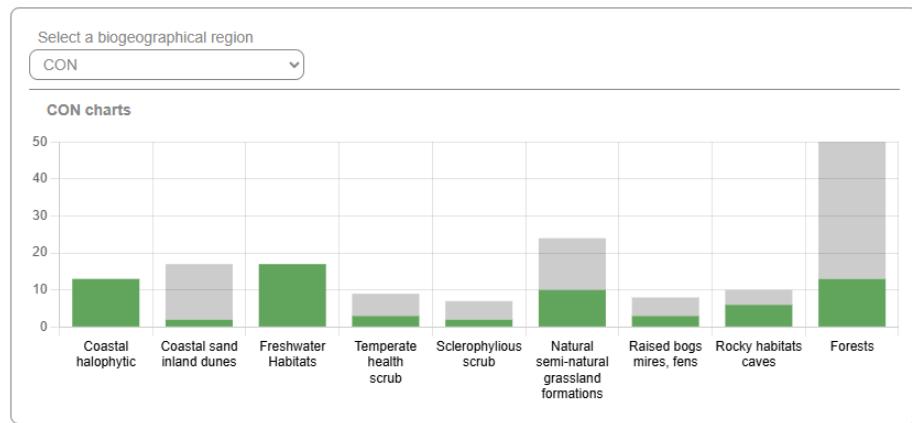
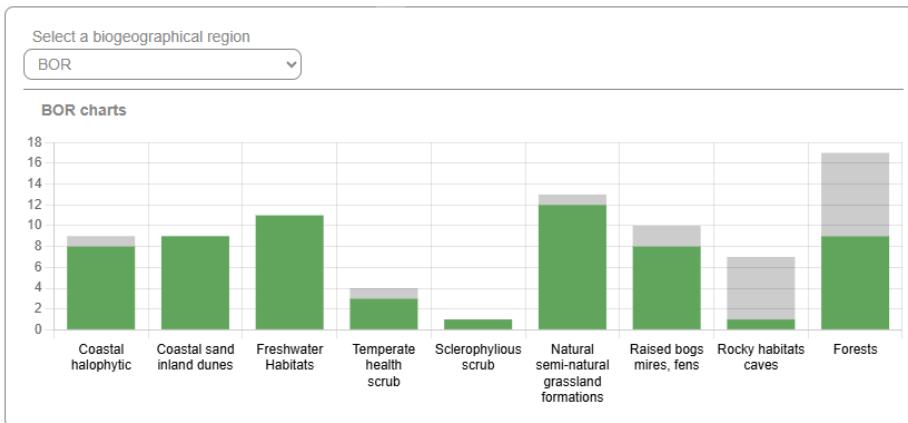
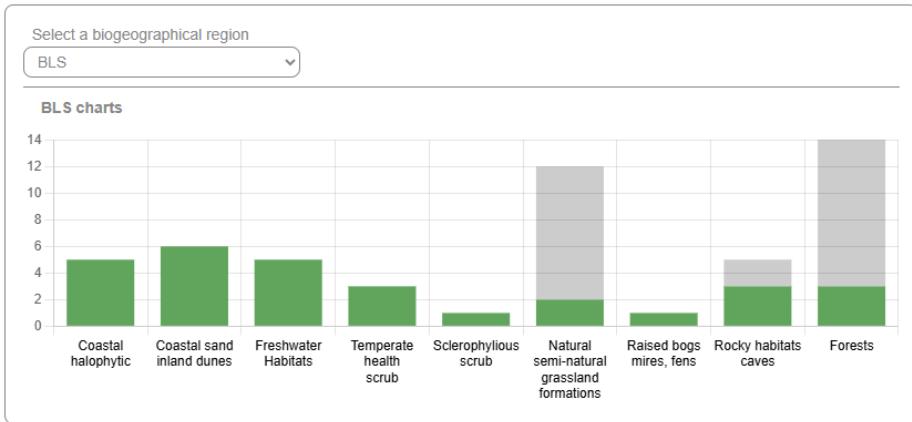
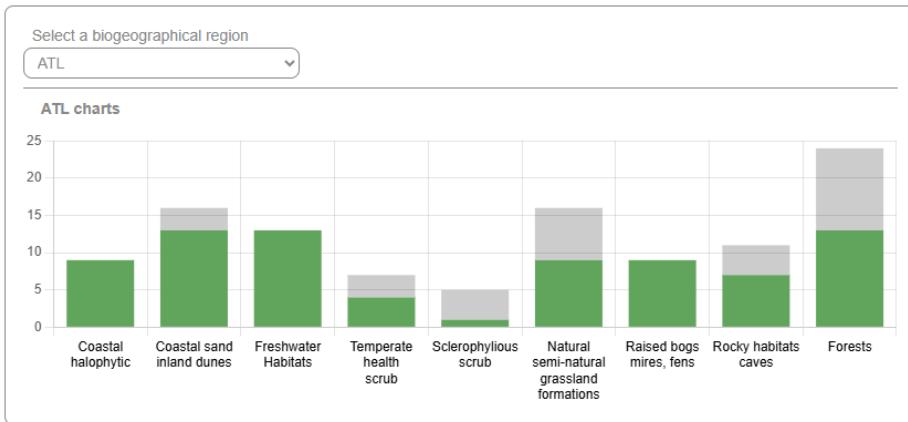
43% (target 40%)

More than one assessment for some

## Biogeographical Regions



# Poll Hab web tool: dashboard



# Poll Hab web tool: habitat codes

Dashboard    Experts    Habitat Code

Habitat \ Bioregion	ATL	BLS	BOR	CON	MED	STE	ALP	
1210	✓	✓	✓	✓				
1220	✓		✓	✓				
1230	✓			✓				
1240		✓		✓				
1310	✓	✓	✓	✓				
1320	✓			✓				
1330	✓		✓	✓				
1340	✓			✓			✓	
1410	✓	✓		✓				
1420	✓			✓				

Check which assessments have been completed



# Poll Hab web tool: habitat codes

Habitat \ Bioregion	ATL	BLS	BOR	CON	MED	STE	ALP	I
3120	✓				✓			
3130	✓	✓	✓	✓	✓	✓	✓	
3140	✓	✓	✓	✓	✓	✓	✓	
3150	✓	✓	✓	✓	✓	✓	✓	
3160	✓		✓	✓	✓	✓	✓	
3170	✓			✓	✓		✓	
3180	✓		✓	✓	✓		✓	
3190	✓		✓	✓			✓	
31A0								✓
3210			✓	✓			✓	
3220	✓		✓	✓	✓		✓	

Assessments for some likely 'No Typical Species' completed across all biogeographic regions:

Freshwater standing  
Freshwater: running  
water (some)  
Rocky habitats &  
caves: other rocky  
habitats



# Start a new assessment

≡ 

Ready to begin? 

**Repository**  
Explore past submissions.

 **COMPLETED ASSESSMENTS** 

ATL 91E0  
05/11/2025, 10:11 

ATL 91J0 Sam Ellis  
05/11/2025, 09:41 

ATL 91D0 Sam Ellis  
05/11/2025, 09:38 

**DRAFT ASSESSMENTS** 

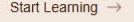
No assessments to be completed

**Expert Assessment**

ATL 6210 Sam Ellis 

 **Start your new assessment**

 **Info**  
On the left, you will find a list of completed assessments and those still in draft. You can also filter the assessments by biogeographical region and habitat code.

 **Tutorial**  

Total : 144  Completed: 143

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D&D by 



# Find the data for that region/habitat combination

Repository

Explore past submissions.

COMPLETED ASSESSMENTS

- ATL 91E0 05/11/2025, 10:11 completed
- ATL 91J0 Sam Ellis 05/11/2025, 08:41 completed
- ATL 91D0 Sam Ellis 05/11/2025, 09:38 completed

DRAFT ASSESSMENTS

- ATL 6210 Sam E 22/11/2025, 11:05 in-progress

## Assessment: ATL 6210 Sam E

Rename Save draft Download Assessment's note

Follow the criteria below to complete your assessment

1 Subcriterion A1 Distribution overlap 2 Subcriteria A2 A3 A4 Functional link with habitat 3 Criterion B Indicator of habitat quality and biodiversity

**Pollinator data**

- Select filters to begin working with your assessment:

Biogeographical region	Habitat ID	Taxon	Overlap Threshold
ATL	6210	butterflies	≥ 50

BIO. REGION	ID HAB.	TAXON	SPECIES	OVERLAP	ⓘ	ⓘ
ATL	6210	butterflies	<i>Aglais io</i>	99	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Aglais urticae</i>	81	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Anthocharis cardamines</i>	98	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Apatura iris</i>	52	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Aphantopus hyperantus</i>	76	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Argynnis paphia</i>	85	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Aricia agestis</i>	79	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Azanus ubaldus</i>	N/A	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Callophrys rubi</i>	81	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Carcharodus stauderi</i>	N/A	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Celastrina argiolus</i>	94	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	<i>Coenonympha pamphilus</i>	100	<input type="checkbox"/>	<input type="checkbox"/>

« Backward Species selected after A1: 47

No typical species



# Select candidate typical species

 **Repository**  
Explore past submissions.

 **COMPLETED ASSESSMENTS**

- ATL 91E0 05/11/2025, 10:11 completed
- ATL 91J0 Sam Ellis 05/11/2025, 09:41 completed
- ATL 91D0 Sam Ellis 05/11/2025, 09:38 completed

 **DRAFT ASSESSMENTS**

- ATL 6210 Sam E 22/11/2025, 11:05 in-progress

## Assessment: ATL 6210 Sam E

 Rename  Save draft  Download  Assessment's note

Follow the criteria below to complete your assessment

1

### Subcriterion A1

Distribution overlap

2

### Subcriteria A2 A3 A4

Functional link with habitat

3

### Criterion B

Indicator of habitat quality and biodiversity

4

### Criterion C

Ease of monitoring

#### Pollinator data

- Select filters to begin working with your assessment:

Biogeographical region

ATL

Habitat ID

6210

Taxon

butterflies

Overlap Threshold

≥ 50

0 100

BIO. REGION	ID HAB.	TAXON	SPECIES	OVERLAP		
ATL	6210	butterflies	Colias_crocea	80	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Cupido_minimus	72	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ATL	6210	butterflies	Erynnis_tages	86	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ATL	6210	butterflies	Euphydryas_aurinia	53	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Favonius_quercus	84	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Gonepteryx_rhamni	89	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Hipparchia_semle	57	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Kretania_euryphilus	N/A	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Lasiomma_megera	92	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Limenitis_camilia	77	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Luthrodes_galba	N/A	<input type="checkbox"/>	<input type="checkbox"/>
ATL	6210	butterflies	Lycaena_phlaeas	97	<input type="checkbox"/>	<input type="checkbox"/>

« Backward

Species selected after A1: 47

Forward »»



# Functional link with habitat

Ready to begin? 

**Assessment: ATL 6210 Sam E**    

Follow the criteria below to complete your assessment

1  Subcriterion A1 Distribution overlap  Subcriterias A2 A3 A4 Functional link with habitat  Criterion B Indicator of habitat quality and biodiversity  Criterion C Ease of monitoring

**Functional link with habitat**

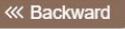
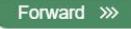
ID HAB.	SPECIES
6210	Cupido_minimus
6210	Erynnis_tages

SUB A2 PLANTS	A2 UNCERTAINTY	SUB A3 NEST	A3 UNCERTAINTY	SUB A4 MICRO HABITATS
1	Low	0		1
1	Low	0		1

**Select a species that develops on a hostplant occurring in the habitat**

**Low: strong and consistent evidence**  
**Medium: moderate evidence**  
**High: limited, conflicting or inconclusive evidence**

Species selected after A1: 47



# Functional link with habitat

Repository

Explore past submissions.

COMPLETED ASSESSMENTS

ATL 91E0 05/11/2025, 10:11 completed

ATL 91J0 Sam Ellis 05/11/2025, 09:41 completed

ATL 91D0 Sam Ellis 05/11/2025, 09:38 completed

DRAFT ASSESSMENTS

ATL 6210 Sam E 22/11/2025, 11:05 in-progress

## Assessment: ATL 6210 Sam E

Rename Save draft Download Assessment's note

Ready to begin? 

Follow the criteria below to complete your assessment

1 Subcriterion A1 Distribution overlap

2 Subcriteria A2 A3 A4 Functional link with habitat

3 Criterion B Indicator of habitat quality and biodiversity

4 Criterion C Ease of monitoring

**Functional link with habitat**

ID HAB.	SPECIES	UNCERTAINTY	SUB A3 NEST	A3 UNCERTAINTY	SUB A4 MICRO HABITATS	A4 UNCERTAINTY
6210	Cupido_minimus	Low	0	Low	1	Low
6210	Erynnis_tages	Low	0	Low	1	Low

Select whether the species uses microhabitats occurring in the habitat

Species selected after A1: 47

Backward Forward



# Indicator of habitat quality and biodiversity

Ready to begin? 

Assessment: ATL 6210 Sam E    

Follow the criteria below to complete your assessment

Subcriterion A1  Distribution overlap

Subcriteria A2 A3 A4  Functional link with habitat

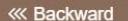
Criterion B  Indicator of habitat quality and biodiversity

Criterion C  Ease of monitoring

**Indicator of habitat quality and biodiversity**

ID HAB.	SPECIES		HABITAT QUALITY 	UNCERTAINTY 	WIDER BIODIVERSITY 	UNCERTAINTY 
6210	Cupido_minimus		4 	Low 	Unknown 	
6210	Erynnis_tages		4 	Low 	Unknown 	

**1. Species also occurs in highly degraded areas**  
**2. Species is somewhat tolerant of alteration in habitat quality**  
**3. Species is moderately responsive to quality changes**  
**4. Species is uncommon in degraded areas**  
**5. Species is restricted only to optimal conditions**

 Species selected after A1: 47 



# Indicator of habitat quality and biodiversity

Ready to begin? 

Assessment: ATL 6210 Sam E    

Follow the criteria below to complete your assessment

Subcriterion A1  Distribution overlap

Subcriteria A2 A3 A4  Functional link with habitat

Criterion B  Indicator of habitat quality and biodiversity

Criterion C  Ease of monitoring

**Indicator of habitat quality and biodiversity**

ID HAB.	SPECIES		HABITAT QUALITY 	UNCERTAINTY 	WIDER BIODIVERSITY 	UNCERTAINTY 
6210	Cupido_minimus		4 	Low 	Unknown 	
6210	Erynnis_tages		4 	Low 	Unknown 	

**1.** Shows little or no consistent association with the occurrence of non-pollinator species of conservation concern

**2.** Weak association with other non-pollinator species of conservation concern

**3.** Sometimes associated with a subset of non-pollinator species of conservation concern

**4.** Frequently co-occurs with several non-pollinator species of conservation concern

**5.** Strong, consistent association with many non-pollinator species of conservation concern



# Ease of monitoring

Ready to begin? 

Assessment: ATL 6210 Sam E    

Follow the criteria below to complete your assessment

Subcriterion A1  Distribution overlap

Subcriteria A2 A3 A4  Functional link with habitat

Criterion B  Indicator of habitat quality and biodiversity

Criterion C  Ease of monitoring

**Ease of monitoring**

ID HAB.	SPECIES	UNCERTAINTY	WIDER BIODIVERSITY	UNCERTAINTY	EASE OF MONITORING
6210	Cupido_minimus	Low	Unknown	Low	Easy to identify
6210	Erynnis_tages	Low	Unknown	Low	Very easy to identify

1. Very easy to identify: distinctive features, easily recognizable in the field. No confusion with similar species

2. Easy to identify: mostly clear features, minor potential for confusion with similar species.

3. Moderately difficult to identify: some expertise required. May need close inspection or field guides

4. Difficult to identify: often requires microscopic features or consultation with a specialist

5. Very difficult to identify: indistinguishable without dissection, DNA or expert-level taxonomic skills



# Submit or save draft assessment

Ready to begin? 

Assessment: ATL 6210 Sam E    

Follow the criteria below to complete your assessment

Subcriterion A1  Distribution overlap

Subcriteria A2 A3 A4  Functional link with habitat

Criterion B  Indicator of habitat quality and biodiversity

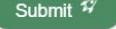
Criterion C  Ease of monitoring

**Ease of monitoring**

ID HAB.	SPECIES	UNCERTAINTY	WIDER BIODIVERSITY	UNCERTAINTY
6210	Cupido_minimus	Low	Unknown	Low
6210	Erynnis_tages	Low	Unknown	Low

**EASE OF MONITORING**

Easy to identify
Very easy to identify

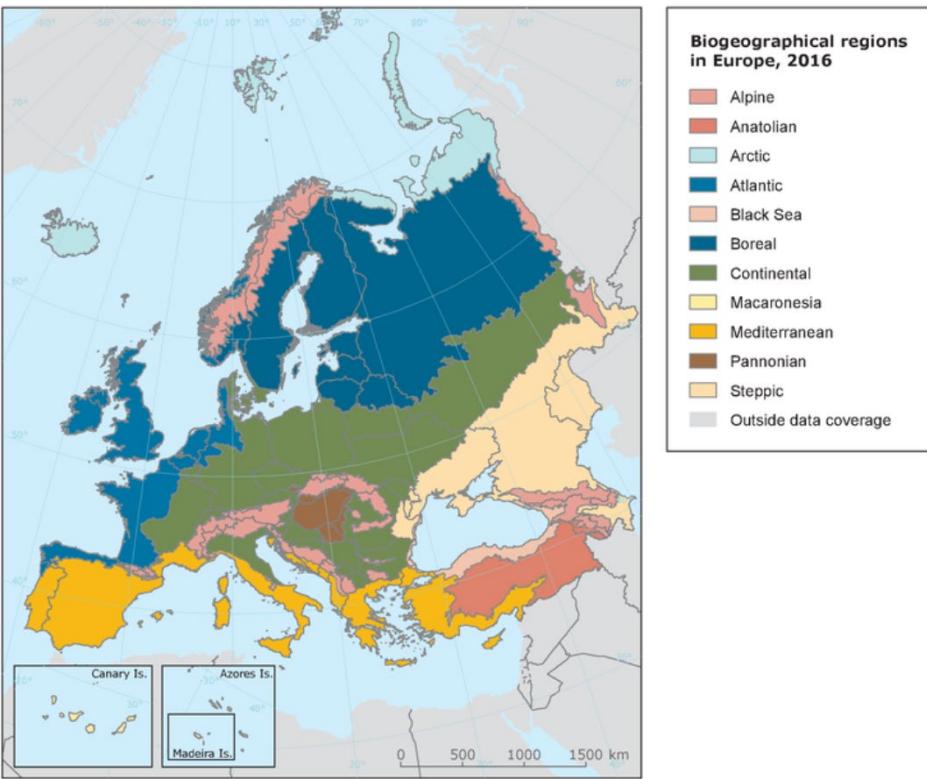
« Backward  

No more assessments 



# Workshop groups

1. Alpine (Alps, Balkans)
2. Atlantic
3. Black Sea/Pannonian/Steppic/  
Alpine (Carpathians)
4. Boreal and Alpine (Scandinavian)
5. Continental
6. Mediterranean (western)
7. Mediterranean (central and eastern)



Still to do:

Atlantic (western France; northern Spain)

Alpine (Pyrenees)

Macaronesia



# Workshop groups

## 1. Alpine (Alps)

Goran Dusej  
Johannes Rüdisser  
Martin Wiemers

## 2. Alpine (Balkans)

Miloš Popović  
Chris van Swaay  
Martina Šašić

## 3. Atlantic (France, Spain)

Nigel Bourn  
Mathieu De Flores  
Constanti Stefanescu  
Cristina Sevilleja

## 4. Black Sea/Pannonian/Steppic/ Alpine (Carpathians)

Daniela Lehner  
Andras Szabadfalvi  
Zdravko Kolev  
Karen Aghababyan  
Iulia Muntean  
László Rákosy

## 5. Boreal and Alpine (Scandinavian)

Janne Heliola  
Lars Pettersson  
Anu Tiitsaar  
Egle Viciuviene

## 6. Continental (western)

Anne Eskildsen  
Elisabeth Kühn  
Xavier Mestdagh  
Aidan Whitfield

## 7. Continental (eastern)

Zdenek Fric  
Marcin Sielezniew  
Irma Wynhoff

## 8. Mediterranean (western)

José Miguel Barea  
Eva Monteiro  
Miguel Munguira  
Martin Warren

## 9. Mediterranean (central and eastern)

Simona Bonelli  
Leonardo Dapporto  
Evrím Karaçetin  
Özge Özden  
Albert Vliegenthart

## 10. Moths

Helder Cardoso  
Jurriën van Deijk  
Stefano Scalercio

