

GLORIA Web Application Help File

Updated: February 2026

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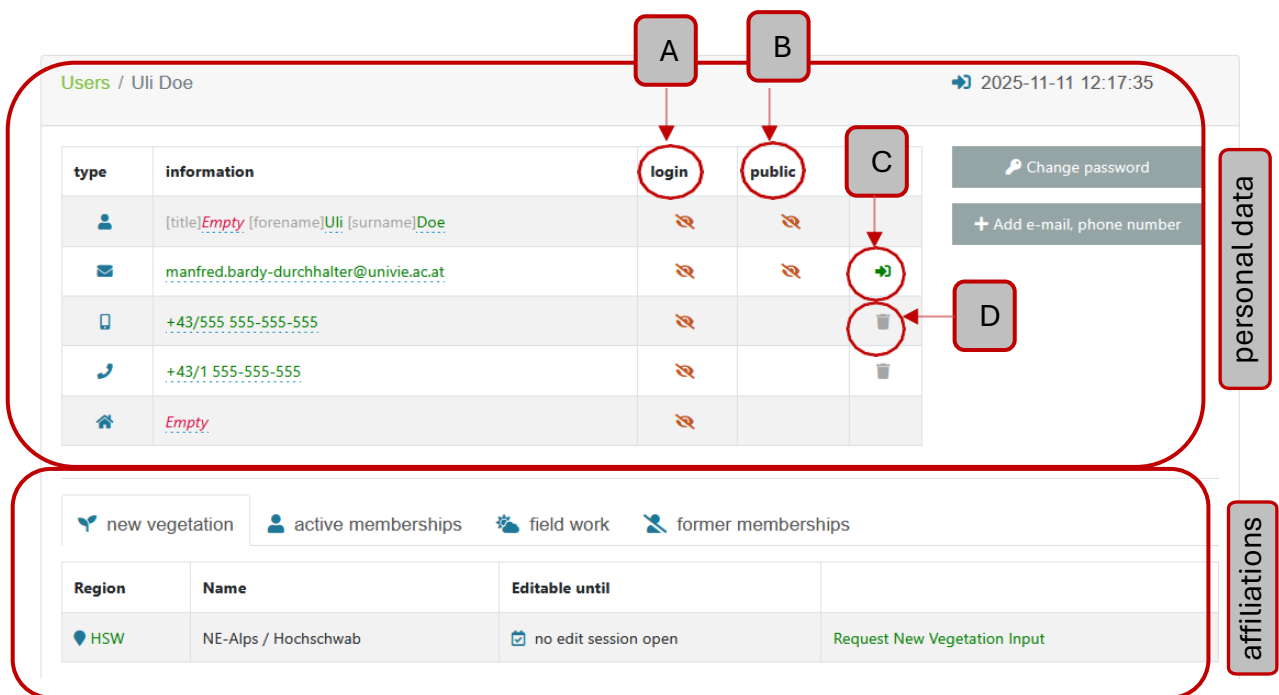
Part 1 (overview)

The internal GLORIA web application builds on four main categories – Profile, Users, Institutions, Target regions.

Internal
 Profile
 Users
 Add User
 Institutions
 Target Regions

Profile

Here you can see your personal data and information about your role within GLORIA. Information on your profile page can be updated. Editable data is marked with blue dotted underlines (throughout this web application). To edit data just click into the respective field, update the information and enter your changes with the return key:



Users / Uli Doe 2025-11-11 12:17:35

type	information	login	public	
	[title]Empty [forename]Uli [surname]Doe			
	manfred.bardy-durchhalter@univie.ac.at			
	+43/555 555-555-555			
	+43/1 555-555-555			
	Empty			

Change password
+ Add e-mail, phone number

new vegetation active memberships field work former memberships

Region	Name	Editable until	
	NE-Alps / Hochschwab	 no edit session open	Request New Vegetation Input

A) This icon indicates if this data line will be displayed to GLORIA partners after

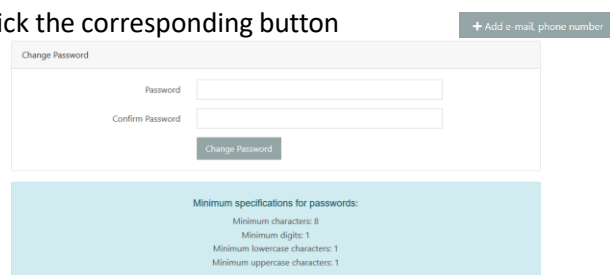
logging in on the website.

- B) This icon indicates if this data line will be displayed on the website without being logged in.

To change the visibility of your data click the respective eye button.

- C) This green icon indicates your email address that is used for the login process. If you want to change your login-email address, just replace it with the new email address.
- D) To delete data, click the 'trash basket' symbol. Data will disappear from the display, but will be stored for backup reasons and will be deleted automatically from the database after the expiration of one year.

To add new contact data, click the corresponding button

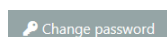


The image shows a web interface with a 'Change Password' form and a list of password specifications. The form has two input fields: 'Password' and 'Confirm Password', followed by a 'Change Password' button. To the right of the form is a button labeled '+ Add e-mail, phone number'. Below the form, a light blue box contains the following text:

Minimum specifications for passwords:
Minimum characters: 8
Minimum digits: 1
Minimum lowercase characters: 1
Minimum uppercase characters: 1

- Email address(es), phone and mobile phone numbers can be entered.

If you want to change your password click the corresponding button



The tabs below indicate your current and former affiliations to institutions and target regions, and your participation as field worker. In the tab "new vegetation" you can start the process of vegetation data input by clicking on "request new vegetation input" (more instructions on this see further below in the second part of this manual).

Management of data access rights

The following roles of users are currently implemented:

Role Name	Description	Login	View		Edit	
			local	global	local	global
advisory team member	former members	✓	✓	✗	✗	✗
field worker	only manageable by database system	✗	✗	✗	✗	✗
core team member	target region team member	✓	✓	✗	✓	✗
vice head of target region		✓	✓	✗	✓	✗
head of target region	Responsible for a target region	✓	✓	✗	✓	✗
gloria coordination team	Core team in Vienna	✓	✓	✓	✓	✓

- Every registered core team- and (vice)head-user of a 'target region team' can see, edit and change the role of all team members of the respective target region AND institution
- For any other institution and target region (to which you are not affiliated/assigned to) only basic information will be displayed, which excludes information about current and former members or fieldworkers and data are not editable.

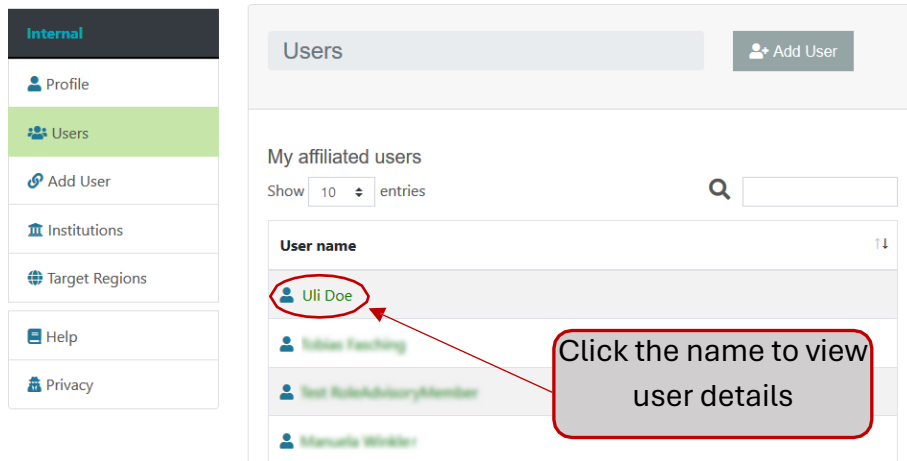
ONLY the GLORIA Coordination Office can assign ...

- ... new target regions
- ... new institutions to target regions

If you establish a new target region or if a new institution gets involved with your existing target region, please send a mail to gloria.office@boku.ac.at

Users

In this category you can find all GLORIA-specific users that are part of your institution. If you are affiliated to more than one relevant institution, respective users of each institution you belong to are



displayed.

Clicking on the name of a fellow user will show you the same information as your own profile but without editing possibilities.

You can edit another user's role, institutions and status, if they belong to your target region and if you have editing rights (see access rights in yellow box above). To do so, go to the "active members" tab on your target regions page (more info see in section "target regions")

- You can *filter* and *search* within the list of users, using the search field 
- You can *sort* your list using the ordering icon  in the upper right corner of the table.
- If you have editing rights you can enter a new user by clicking the button  on this site.
- An input form pops up asking for information about the new user:

Here you can either enter a core team member of your team under "assign core team member" or a fieldworker under "assign fieldworker". For fieldworkers you don't have to enter their Institution,

and they don't have log in rights.
Required fields are marked with an asterisk.

Add User

Here you can directly access the user input form explained above via the main side bar.

Institutions

In this category you can find all institutions that are (or formerly were) related to the GLORIA network. Institutions to which you are affiliated to are listed on top, followed by all others.

 Institutions

My affiliated GLORIA institutions

Institution names

GLORIA Coordination Office

Other GLORIA institutions

Other GLORIA institutions

Academy of Sciences of the Kyrgyz Republic; Institute for Biology and Soil, Lab. of Flora

Agenzia Regionale per la Protezione dell'Ambiente della Valle d'Aosta / Italy

Altaiiskiy Biosphere Reserve

If you click on the institution you are affiliated with, the following overview appears. You can edit data that are marked with blue dotted underlines.

Institutions / GLORIA Coordination Office

 Homepage

www.gloria.ac.at

 Acronym

Empty

 Address

Street: [Gregor-Mendel-Straße](#) Streetnumber: [33](#)

PO-Box: Empty

Country: CityCode: [1180](#) City: [Wien](#)

 target regions

 active members

 former members

Showing 1 to 2 of 2 entries

Region	Name
 CHU	Chaudhans Valley, Uttarakhand
 HSW	NE-Alps / Hochschwab

institution data

affiliations

7

A) All current GLORIA members of an institution and their assigned target regions are listed in the tab

‘active members’(A). Every member has a GLORIA-specific role in their institution and target region (for the definition of roles see the yellow box above under ‘Management of data access rights’). Different membership configurations to target regions and institutions are possible.

target regions active members former members

Assign user to institution

Showing 1 to 14 of 14 entries

Name	Region	RoleDefinition	since
Pauli Harald	HSW	gloria coordination team	
Hardy-Durchhalter Manfred	HSW	gloria coordination team	
Amprecht Andrea	HSW	gloria coordination team	
...	HSW	gloria coordination team	2018-10-15

B) Use button (B) to add an ‘existing person’ in the database to a new institution and/or target region. This will direct you to the “add user” interface. To find a person in the database you must search their email first.

C) To change a user’s institution or role, click the edit button on the left side of the user’s name (C). You will be directed to the following page:

Create new institution for AT-HSW Assign existing institution to AT-HSW return to institution

Name Uli Doe

Institution GLORIA Coordination Office

Region AT-HSW: NE-Alps / Hochschwab

Role core team member

Since 2018-07-17

retire user

If you want to change the institution, but the new institution is not yet assigned to your target region, you can do so by assigning an existing institution (D) or creating an institution that is not yet part of GLORIA (E).

Here you can also sign off a user’s membership in an institution using the “retire

user” button (F). This will shift their name to the the tab “former members” You can re-activate a retired user using the “activate user” button, which will be in place of the “retire user” button.

If a user is signed off from all memberships in the GLORIA database, the person is automatically blocked from login!

If you want to grant a former member still the rights to read data, assign the role ‘advisory team member’. See yellow box ‘management of data access rights’ in this document.

Target regions

In this category you can find all target regions that are part of the GLORIA network, with those you are assigned to on top.

Regions				
My GLORIA regions				
				
region name	country	region	established	surveys/ finalized
NE-Alps / Hochschwab	AT	HSW	2001	5/4
Showing 1 to 1 of 1 entries				
Other GLORIA regions				
				
region name	country	region	established	surveys/ finalized
Altai / Katunskiy Biosphere Reserve (Altai Republic)	RU	AKA	2005	2/2
Altai / Tigirekskiy Nature Reserve (Altai Republic)	RU	TIG	2010	1/0
Andes - Cordillera Oriental / Páramo Chingaza	CO	CHZ	2007	1/0
Andes / Cordillera Ancestral	BO	ADI	2007	1/0

If you click on your target region, the following overview appears.

Regions / AT - HSW

[Affiliations](#)
[Description](#)
[ZIK](#)
[WEK](#)
[GHK](#)
[ZAK](#)
[Logger](#)
[Vegetation](#)
[Public](#)

[Export](#)



NE-Alps / Hochschwab

Established: 2001

Surveys/finished in database: 5/4

[Institutions](#)
[active members](#)
[field workers](#)
[former members](#)

Name

- Austrian Academy of Sciences, Institute for Interdisciplinary Mountain Research
- BOKU - University of Natural Resources and Life Sciences, Vienna, Department of Integrative Biology and Biodiversity Research
- GLORIA Coordination Office

- The first tab “**Affiliations**” shows all institutions, members and fieldworkers affiliated with your target region.

All institutions related to the target region are listed in the first sub-tab “institutions”.

All current members of a target region are listed in the tab “active members”. Here information about their institution and role are shown. In order to change this information click the  button on the left side of their name.

[institutions](#)
[active members](#)
[field workers](#)
[former members](#)

[Assign user to region](#)

Showing 1 to 21 of 21 entries

↑↓	Name	↑↓	Institution	↑↓	Role	↑↓	since	↑↓
			 GLORIA Coordination Office		gloria coordination team			
			 GLORIA Coordination Office		gloria coordination team			
			 GLORIA Coordination Office		gloria coordination team			

If the user is a member of more than one institution, you can add an additional institution here. If a user is no longer active member of your target region, you can retire them, which will add their name to the list of “former members”, or also return a retired user to the active members.

Regions / AT - HSW / edit user affiliation

[Create new institution for AT-HSW](#)
[Assign existing institution to AT-HSW](#)
[return to region HSW](#)

 Name	Uli Doe
 Institution	GLORIA Coordination Office
 Region	AT-HSW: NE-Alps / Hochschwab
 Role	core team member
 Since	2018-07-17

[retire user](#)

- In the tab “**Description**” you can add or edit data which are marked with blue dotted underlines.
For latitude and longitude please add values with at least 6 decimal places.

Affiliations
Description
ZIK
WEK
GHK
ZAK
Logger
Vegetation
Public
Export

Midpoint coordinates of the region (decimal degrees)

Latitude	47.61191273	Longitude	15.12730265
----------	-------------	-----------	-------------

Altitude of major vegetation boundary lines (m)

Potential natural forestline	1700
Potential natural treeline	1900
Current forestline	1650
Current treeline	1850

Comments on vegetation boundary lines

Tree line and forest line below the GLORIA summit is in a rather natural state, especially in steeper terrain. Possibly it is slightly depressed because of historical land use (grazing).

Summits dominant bedrock material and soil pH

Limestone, soil pH 6-7
Locally soils can be more acidic such as below Pinus mugo and Rhododendron hirsutum

Short description & land use (current/history)

After the second world war grazing activity in Styria strongly decreased. Since 1973 the Hochschwab region is a protected area for drinking water supply. Therefore grazing is not allowed. The upper alpine area near the GLORIA summits (Caricetum firmae) most likely was never a favor grazing ground.

- In each summit tab (in the example target region HSW these are ‘GHK’, ‘WEK’, ‘ZAK’ and ‘ZIK’), you can add or edit general summit meta-data which are marked with blue dotted underlines. The measurement data of plot position and size for each summit are also located here.

Affiliations
Description
ZIK
WEK
GHK
ZAK
Logger
Vegetation
Public
Export

General
Measurement Points
Intersection Lines
Calculations

Geogr. coordinates

Latitude	47.598597600000000	Longitude	15.090780400000000
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Altitude (m)

1910

Vegetation zone

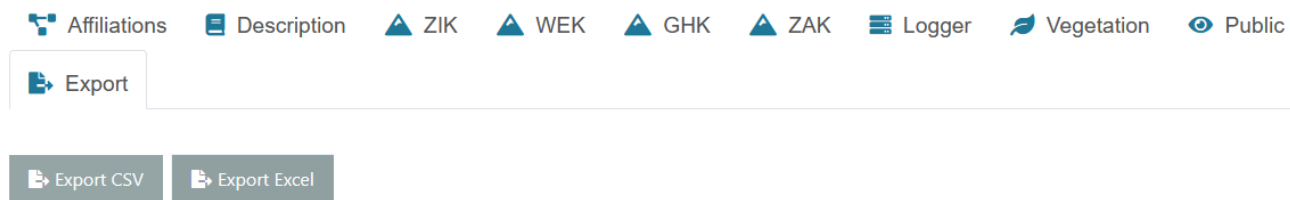
treeline ecotone

General comments

measurement data from 1998 (except the 10m points and intersection lines); p5m_31 distances were measured again (the 1998 values were: for N31:25.37, E31: 25.5, S31: 18.4, W31: 16);

EMPTY FIELDS: photo check for frequency: because freq. sampling was not made: will be finalised in 2002;

- In the tab “**Logger**” you can view the data of your temperature loggers and add new data. For detailed information see Part 3 of this manual (“Input of logger data”) Please provide the RAW data of temperature series and the required meta data!
- In the tab “**Vegetation**” you can view your vegetation data. For adding new vegetation data see the sections “Request of new species/vegetation data “ and “Input of new species/vegetation data” further below.
- In the tab “**Public**” you can manage which data can be seen by the public, when clicking on your target region. This concerns the description of your region and information on members.
- The tab “**Export**” allows you to download a CSV or Excel file containing all data you have entered into the GLORIA database. The download always represents the current state of the data. The file includes one sheet with explanations.



We collect a history of exports with the date and the user that executed the export.
In case of errors in the data we can contact the corresponding people.

Part 2 (entry of vegetation data)

Request input of new species/vegetation data

If you login on the Webpage you will start in your user profile page.

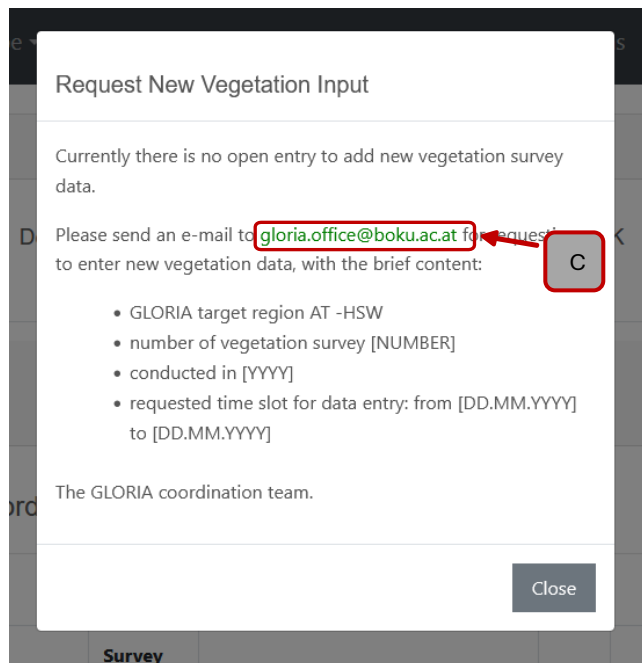
The screenshot shows the user profile page for 'Empty Uli Doe'. It includes a table of user details and a sidebar with tabs for 'new vegetation', 'active memberships', 'field work', and 'former memberships'. A red box labeled 'A' points to the 'Request New Vegetation Input' button in the 'new vegetation' tab.

Region	Name	Editable until
HSW	NE-Alps / Hochschwab (Austria)	no edit session open

If you start to enter new species/vegetation data you need to request a new vegetation input. Following the Link (A) you are directed to your region page where under the tab “vegetation” the button (B) will open a window telling you which information is needed to finish the request.

The screenshot shows the region page for HSW. It includes a sidebar with tabs for 'Affiliations', 'Description', 'ZIK', 'WEK', 'GHK', 'ZAK', 'Logger', 'Vegetation', and 'Public'. A red box labeled 'B' points to the 'Request New Vegetation Input' button in the 'Vegetation' tab.

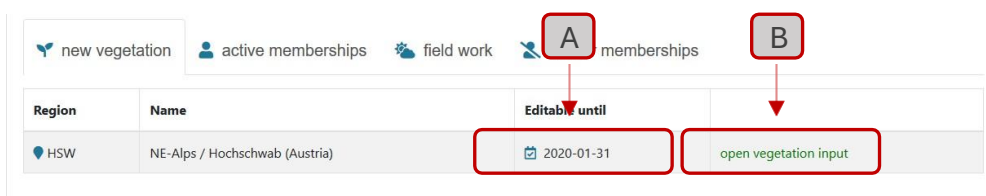
Summit	Plot	Survey Type	Species Name	Cf.	Cover	Abu	Freq Counts	Pointing Hits	FRE
1	GHK	E05	SAS	Agrostis alpina Scop.	0%	s			
1	GHK	E05	SAS	Androsace chamaejasme Wulfen	0%	r!			
1	GHK	E05	SAS	Arenaria ciliata L. subsp. ciliata	0%	s			



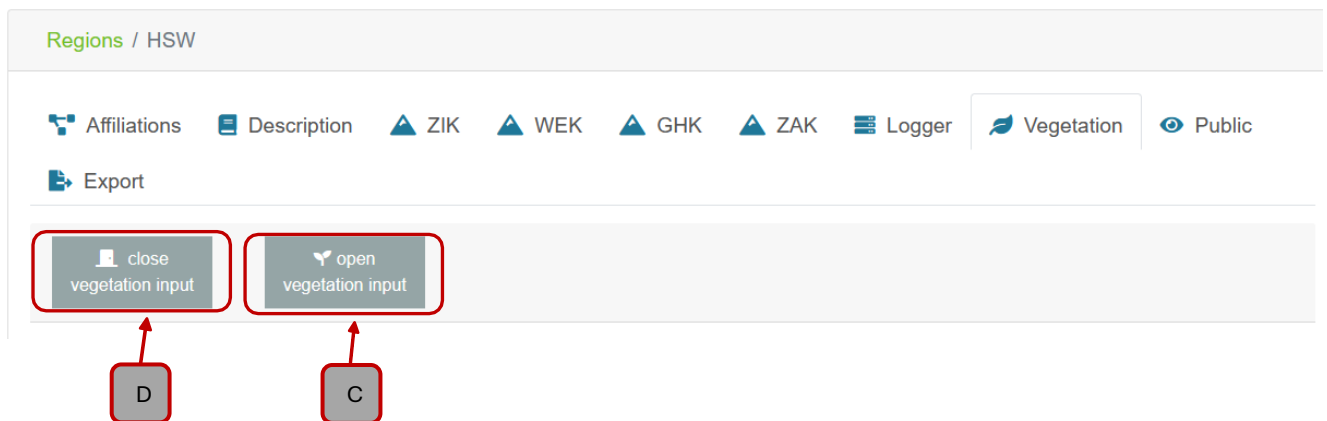
Send the information (target regions code, number of survey, year, time slot needed for data entry) to gloria.office@boku.ac.at. Clicking on this email address (C) in the popup window will already open your email browser with a template text. After receiving this email from you, the GLORIA coordination will unlock your site for data entry.

Input of new species/vegetation data

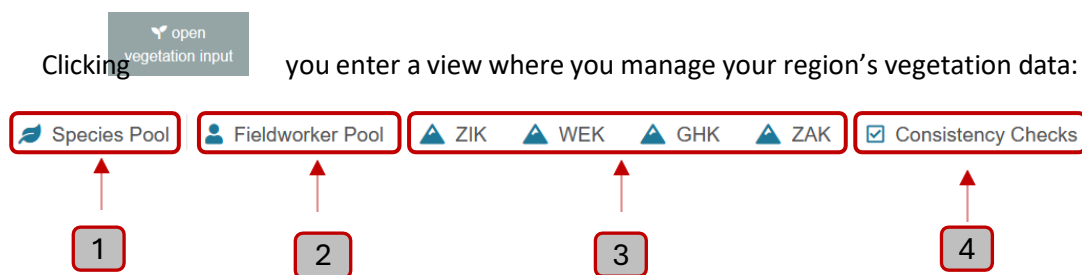
When your input session is unlocked by the coordination team, your user profile view will show (A) a date until which data can be entered (i.e. the date you indicated in your email request; after this date, the application automatically will close your input session) and (B) a shortcut to the editable region.



After clicking (B), your region view appears. In the tab “vegetation” two new buttons are shown: “open vegetation input” (C) and “close vegetation input” (D).



CAUTION: 'Close vegetation input' locks the application from further data input and will inform the coordination team via mail that your data session is finished. The GLORIA coordination team will check all new taxa names for consistency and synonymy to achieve an unambiguous GLORIA-wide list, which usually requires consultation with the field team. We follow the nomenclature used in GBIF (Global Biodiversity Information Facility) as far as possible.



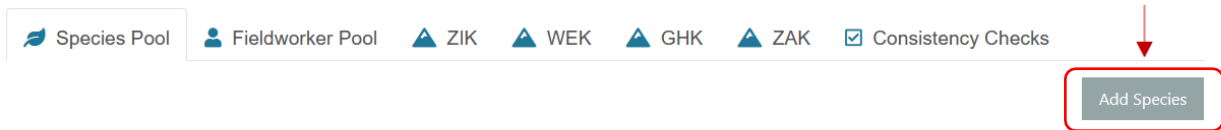
Overview:

- 1) Species pool: only species listed here can be selected for your plot-based data entry. It is highly recommendable to check the completeness of your species list prior to the entry of vegetation data. If your data entry is from a re-survey, all species/taxa entered from your preceding surveys will be displayed and only newly found taxa need to be added. See below for entering species data. *(In the case that you encounter species names in your list that do not exist in your region, please contact the GLORIA coordination).*
- 2) Fieldworker pool: only persons listed here can be selected as researchers in your input forms of plot metadata. It is recommended to enter all fieldworkers involved in your campaign prior to the entry of vegetation data. See below for entering fieldworkers. *(Please contact the GLORIA coordination team if your list contains researcher names unknown to you.)*
- 3) Summits of your region: by selecting a summit you can enter the corresponding data from your field forms 2, 3, and 4 as well as 5 and 6 (if applicable).
- 4) Consistency checks help you to find gaps and inconsistencies in your entered data *Please check and repair your data consistency before you close*

your edit session ('close vegetation input').

(1) Species pool

Add existing species from the GLORIA Database to your region's Species Pool

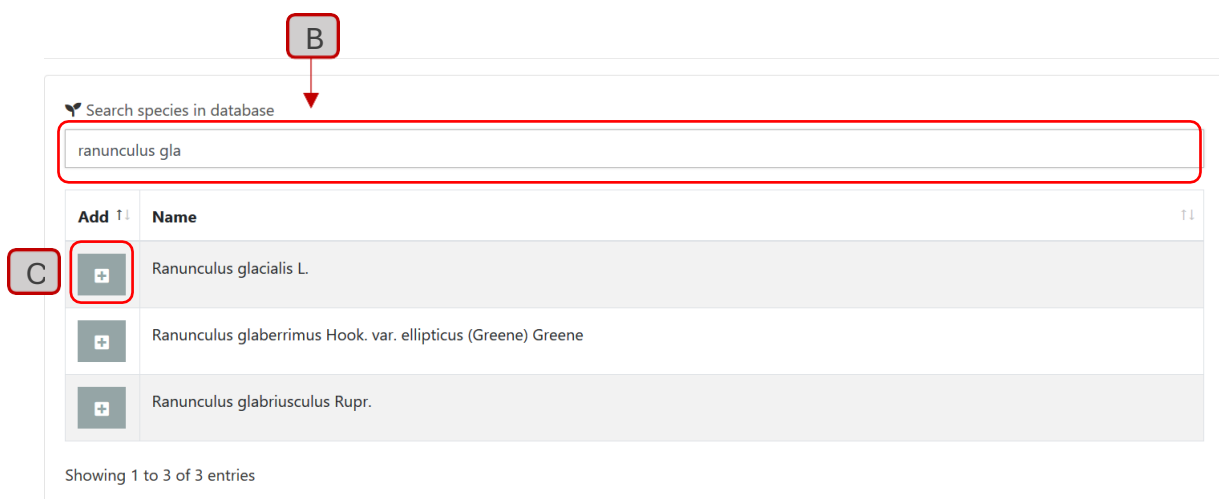


Region Species Pool

Species	Status
Acer pseudoplatanus L.	active
Achillea atrata L.	active
Achillea clavennae L.	active
Achillea clusiana Tausch	active
Aspidium kuetzingii L. subsp. kuetzingii	active

To add a species from the GLORIA database to your region, click the “Add Species” (A) button on the top right. This will open a search box (B). Here you can type in the name of the species, which you want to add to this region. Below the search box, a list will appear containing the results from the database search. To add a new species to your region, click the plus button positioned left to the species name. (C)

If you enter a known synonym into the search field, the result will automatically present the accepted GLORIA species name!



Add a ‘completely’ new species to the GLORIA Database

New species/taxa not yet included in the entire GLORIA species list can be added.

Carefully check by using the search box (B), if the species/taxon is definitely not in the GLORIA list. If so, use the “Add new species” (D) button which will appear on the right side below the search box.

Species Pool Researcher Pool GHK WEK ZAK ZIK ☒ Consistency Checks

Dismiss search

Search species in database

new species

Add new species

Add ↑	Name
No data available in table	

Showing 0 to 0 of 0 entries

When clicked, a new window opens where you can type in the information for the new species you want to add to this region:

Add new species to database

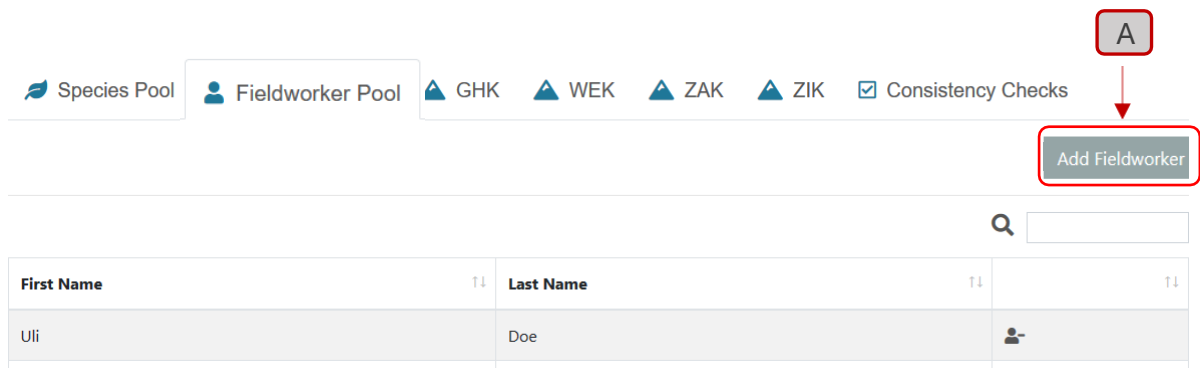
Species name ⓘ	new species	
Plant type ⓘ		
Species rank ⓘ		
Family ⓘ	Acarosporaceae Aceraceae Adiantaceae Agyriaceae Alectoriaceae Alstroemeriaceae	New Family
Genus ⓘ		
Species ⓘ		
Taxon ⓘ		
Reference ⓘ		
Synonyms ⓘ		
Comments ⓘ		

Close Add new species

For entering the plant family the species belong to, there is a dropdown menu (E), where you can select from the respective family name. If this menu doesn't contain a suitable family name for your species, you can add a new one by pressing the "New Family" (F) button right of the dropdown menu. This will change the dropdown menu to a text field, where you can enter the new family name:

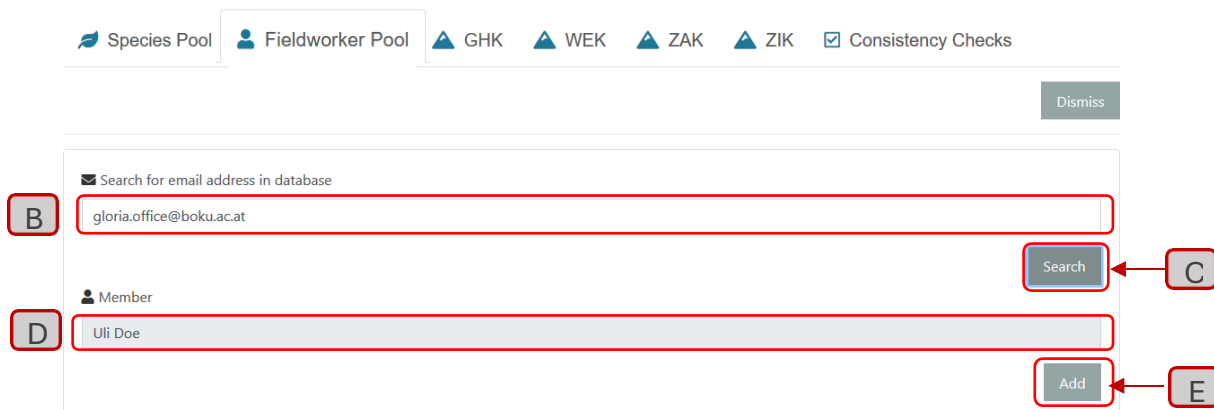
When all required information is entered, you can finish the action by pressing the “Add new species” (G) button to the bottom right.

(2) Fieldworker Pool: Add new persons to your region’s field team



First Name	Last Name	
Uli	Doe	

Similar to the species section you can add a field worker by clicking the “Add Fieldworker” (A) button on the top right side of the list. This will open a search box (B). Here you need to enter the researcher’s email address. Now click the “Search” (C) button on the button left of the search box. When the E-Mail address was correctly entered the Name of the field worker will appear in the “Member” field (D). To finally add the field worker, click the “add” (E) button on the bottom right of the member field.



Search for email address in database

gloria.office@boku.ac.at

Search

Member

Uli Doe

Add

Dismiss

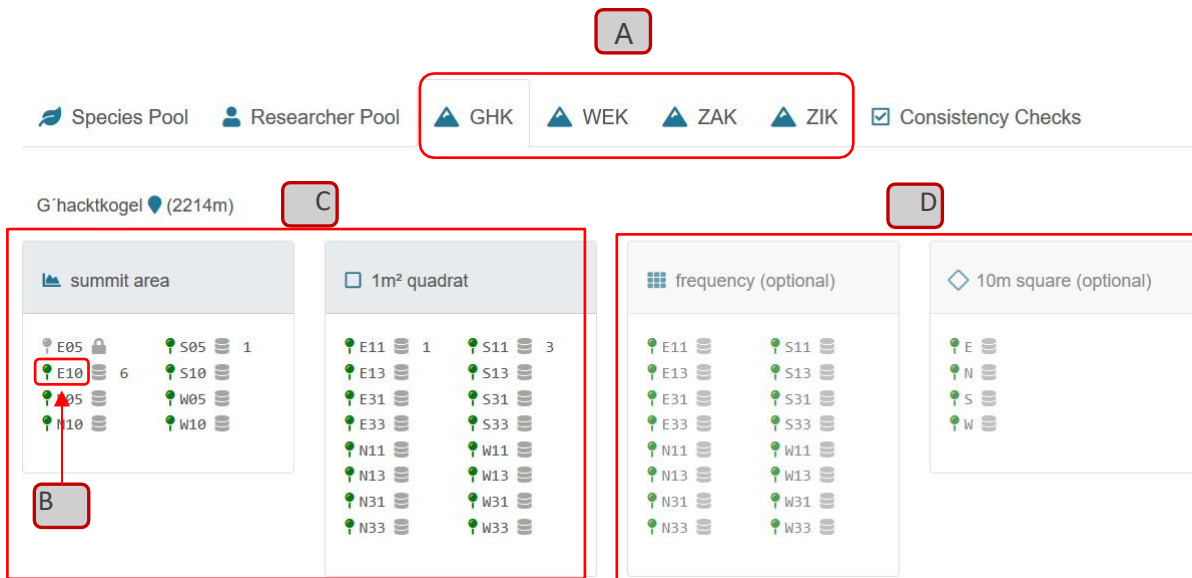
To remove a fieldworker from the pool simply click on the  icon (F) in the corresponding row:

Uli	Doe	
-----	-----	---

(3) Summits: Entry of plot vegetation data

All summit sites of a target region (usually four summits) are displayed with their 3-digit summit code (A; example form AT-HSW, Hochschwab, Northeast Alps).

For each summit, two mandatory sets of plot types (C; 'summit area' and '1m² quadrat') and two additional optional ones (D; 'frequency' and '10m square') are available for data entry.



Each plot is displayed with four elements: E10 5

- A green pin denotes that the plot is available for data entry, whereas a grey one indicates a restricted status.
- 3-digit plot code, e.g. E05
- The database symbol shows that the plot is now open for data entry. If there is a lock symbol instead of the database symbol, another user is currently editing this plot. A plot can only be edited by one user at the same time, but more than one user can enter data concurrently as long as they work on different plots.
- Species count: The number on the right shows how many species currently are entered in this plot. A missing number usually means that the plot is still unworked.

If you want to edit a plot, for example in 'summit area', simply click on the respective plot code, e.g. E10 (B).

Adding Metadata to plot

Clicking on a plot code will redirect you to the 'metadata' part of that plot. Here you can enter all necessary data for the selected plot such as date/time, top cover, fieldworkers and comments:

Metadata

Vegetation

Date/Time

Date:
2008-02-01

start time:
15:00

end time:
18:00

Fieldworker(s)

call

select

Top Cover

Type	%
Vascular	10.00
Rock	20.00
Scree	30.00
Lichens	10.00
Bryophytes	10.00
Ground	10.00
Litter	10.00
Sum	100

Comments (general)

sample comment

comments (landuse)

sample comment

Adding fieldworkers to plots

When adding fieldworkers, you need to click the select dropdown and then pick a fieldworker (A). After the first fieldworker is added as "call", a second dropdown list will appear, where you can choose someone as "scribe" (B), if applicable. After that the last dropdown list shows, so the user can select one more additional fieldworker (C), which would be an exceptional case. Commonly, only one fieldworker is doing the plot survey. Adding fieldworkers only works in this order: Call → Scribe → Add

Fieldworker(s) A

call

select

William Pelt

Shelton Thomas

Chadler Gable

Jeff Gager

Robert Hild

Laurel Hild

Fieldworker(s) B

call

Shelton Thomas

scribes

select

William Pelt

Shelton Thomas

Chadler Gable

Jeff Gager

Robert Hild

Laurel Hild

Fieldworker(s) C

call

Shelton Thomas

scribes

Robert Hild

add

select

William Pelt

Shelton Thomas

Chadler Gable

Jeff Gager

Robert Hild

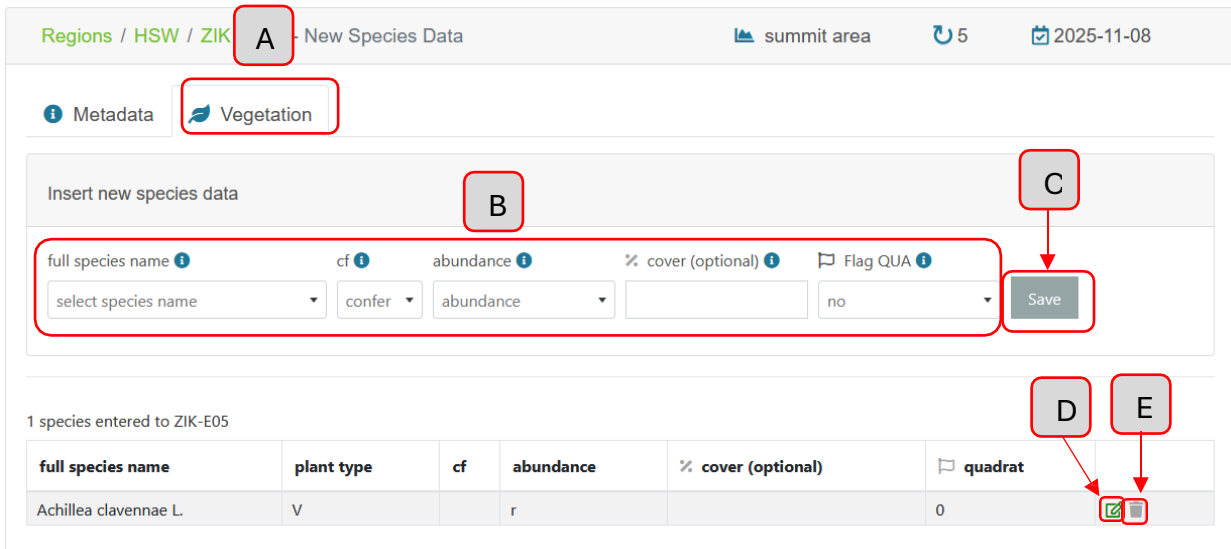
Laurel Hild

Remove fieldworkers from plot

Remove a fieldworker by clicking on the trash basket icon.  Removing fieldworkers only works in the opposite adding order: Add → Scribe → Call

Enter species data of a plot

To insert species data, click the “Vegetation” tab (A). After selecting the necessary information (species name, cf., abundance, ...) (B), you can click the “Save” button (C) to add the species data to the plot.

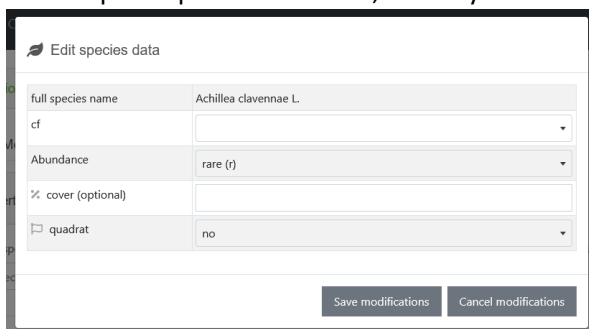


The screenshot shows the 'New Species Data' form. At the top, the breadcrumb 'Regions / HSW / ZIK' is followed by a red box labeled 'A' containing the 'Vegetation' tab. Below this, the 'Insert new species data' section contains a red box labeled 'B' around the input fields: 'full species name' (with a dropdown menu), 'cf' (with a dropdown menu), 'abundance' (with a dropdown menu), '% cover (optional)' (with a text input), and 'Flag QUA' (with a dropdown menu). To the right of these fields is a 'Save' button labeled 'C'. Below the form, a table shows '1 species entered to ZIK-E05'. The table has columns: 'full species name', 'plant type', 'cf', 'abundance', '% cover (optional)', and 'quadrat'. The first row contains 'Achillea clavennae L.', 'V', an empty cell, 'r', an empty cell, and '0'. At the end of this row are two icons: a green checkmark in a box labeled 'D' and a trash can icon labeled 'E'.

full species name	plant type	cf	abundance	% cover (optional)	quadrat
Achillea clavennae L.	V		r		0

If a species is not yet in your species list, you can add it as described in section (1) Species pool

You can see your added data in the table below. If you want to edit this data click the edit button (D), which opens up a new window, where you can change the chosen species data:



The screenshot shows the 'Edit species data' window. It contains the following fields: 'full species name' (Achillea clavennae L.), 'cf' (empty dropdown), 'Abundance' (rare (r) dropdown), '% cover (optional)' (empty text input), and 'quadrat' (no dropdown). At the bottom are two buttons: 'Save modifications' and 'Cancel modifications'.

To remove a certain data-row from the plot, click on the trash basket icon (E) in the table.

(4) Consistency checks

‘Consistency checks’ give you an overview of requirements that need to be met before the vegetation input can be completed and displays plots where data are obviously missing or need revision. The consistency check of this online data input tool contains eight components. *(In case that some components cannot be solved, please send an email to the GLORIA Coordination Office explaining the issue.)*

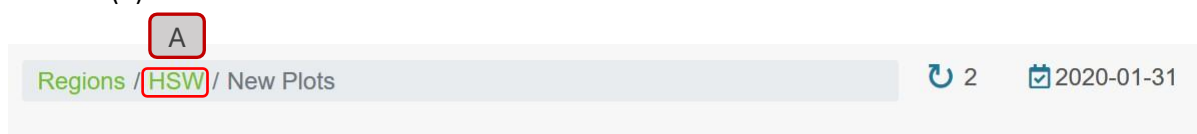
Components of the Consistency checks:

1) Measurement points of plot positions and dimensions

Requirement (1): All measurement points are entered for each summit

All **measurement points** are filled

You can add and change the measurement data for a summit by going back to your Target regions’s main page. Just click the 3-digit target region code on the top of the window (A).



Species Pool Researcher Pool GHK WEK ZAK ZIK ☒ Consistency Checks

Requirement: All measurement points are entered for each summit

Here you need to select the corresponding Summit (B) and select “Measurement Points” (C).

Regions / HSW

Affiliations Description GHK WEK ZAK ZIK

General **Measurement Points** Intersection Lines Calculations

	Point	Distance (m)	Compass direction	Photo check	3x3m
N	11	22.85	34.0	☒ m ² ☒ m ² +Freq.frame	☒
	31	24.35	28.0	☒ m ² ☒ m ² +Freq.frame	
	33	22.35	22.0	☒ m ² ☒ m ² +Freq.frame	
	43	22.35	22.0	☒ m ²	

2) Mandatory “SAS” meta data (Date/Time, Fieldworkers, Top Cover)

① Requirement (2): All obligatory meta data in 'Summit Area Section' [8 plots] is entered ❌ ^

(a) The following **obligatory plots** still require **Date/Time** data

 GHK -E05	 GHK -W05	 WEK -S05	 ZAK -N05	 ZIK -E05
 GHK -E10	 GHK -W10	 WEK -S10	 ZAK -N10	 ZIK -E10
 GHK -N05	 WEK -E05	 WEK -W05	 ZAK -S05	 ZIK -N05

The SAS plots listed above require entry of certain meta data. You can go directly to one of the plots by clicking on the plot code.

3) Mandatory “QUA” meta data (Date/Time, Fieldworkers, Surface data, Top Cover, Subtypes Top Cover)

① Requirement (3): All obligatory meta data in '1m² quadrats' [16 plots] is entered ❌ ^

(a) The following **obligatory plots** still require **Date/Time** data

 GHK -E11	 GHK -S33	 WEK -N31	 ZAK -E13
 GHK -E13	 GHK -W11	 WEK -N33	 ZAK -E31
 GHK -F31	 GHK -W13	 WEK -S11	 ZAK -F33

The QUA plots listed above require entry of certain meta data. You can go directly to one of the plots by clicking on the plot code.

4) Optional “FREQ” meta data (Date/Time, Fieldworkers, Grazing impact)

① Requirement (4): All meta data in optional 'Frequency' [16 plots] is complete if entered ✔ ^

No 'Frequency' plots are entered ✔

If frequency data is entered, entry of the corresponding meta data is checked. You can go directly to one of the plots by clicking on the plot code.

5) Optional “10m square” meta data (Date/Time, Fieldworkers, Direction, Surface Types)

① Requirement (5): All meta data in optional '10m square' [4 plots] is complete if entered ❌ ^

(a) The following optional plots still require **Date/Time** data

 GHK -E	 GHK -W	 WEK -S	 ZAK -N	 ZIK -E
--	--	--	--	--

If 10m square data is entered, entry of the corresponding meta data is checked. You can go directly to one of the plots by clicking on the plot code.

6) Time/Date Consistency

Requirement (6): 'Time/Date' Consistency ✓ ^

- (a) **Dates** are within the **same year** ✓
- (b) All **Dates** are **after 2001** ✓
- (c) No **Dates** in the future ✓
- (d) All **Times** are correctly entered ✓
- (e) **Date** span is **within 4 weeks** ✓

7) Total top cover is 100% in the 'Summit Area Section'

Requirement (7): 'Summit Area Section' sum of top cover percentages must be 100% ✗ ^

The following plots **top cover percentage** doesn't sum up to 100%

GHK -E05
GHK -E10

GHK -W05
GHK -W10

WEK -S05
WEK -S10

ZAK -N05
ZAK -N10

ZJ
ZJ

8) Total top cover is 100% in the '1m² quadrats'

Requirement (8): '1m² quadrats' sum of top cover percentages must be 100% ✗ ^

The following plots **top cover percentage** doesn't sum up to 100%

GHK -E11
GHK -F13

GHK -S33
GHK -W11

WEK -N31
WEK -N33

ZAK -E13
ZAK -F31

9) Species consistency in the 'Summit Area Section' with the corresponding quadrats

Requirement (9): '1m² quadrats' versus 'Summit Area Sections': all species in the quadrat are also listed in the corresponding 'Summit Area Section' ✗ ^

The following 'Summit Area Sections' miss **species** listed in the corresponding '1m² quadrats'-plots

ZIK-E05

10) Sum of percentage species cover versus top cover of the surface type 'vascular plants'

Requirement (10): 1m² quadrats: Sum of %-species cover must be ≥ %-top cover of the surface type 'vascular plants' ✗ ^

The following plots have a **higher %-top cover** of 'vascular plants' than the sum of %-species cover

ZIK -E11

Part 3 (input of logger data)

How to upload temperature logger data via the GLORIA website

The following instructions will guide you through the process of uploading raw data of temperature time series via the GLORIA website.

1. Login to the Gloria-Website, therefore, please click [here](#).

Login

E-Mail Address

x@y

Password

.....

☐ Remember Me

Login

[Request New Password.](#)

To log in your name and email address must be connected with your GLORIA region. These entries can be made by any of the already registered team members.

If you want to log in for the first time or if you forgot your password, please request a new password for your email address.

If you have problems with the Login (e.g. because you do not have a user account or forgot your password) please request a new password or contact the GLORIA Coordination team via gloria.office@boku.ac.at.

2. After logging in you will be directed to your user profile, including links to your GLORIA target region(s). Clicking on the target region code will direct you to the target region page.

new vegetation active memberships field work former memberships					
Region	Name	Editable until		part of the GloriaGlo project	part of the GloNoMo project
HSW	NE-Alps / Hochschwab	no edit session open	Request New Vegetation Input		
XEI	NE-Alps / Nationalpark Gesäuse	no edit session open	Request New Vegetation Input		

- At the target region page, you can find a toolbar with various information about your target region. Click on the “**Logger**” tab to view previous entered temperature data and to add new raw data of your temperature loggers.

The screenshot shows the GLORIA web interface. The top navigation bar includes links for Home, Contact, Scope, Network, Methods, Species, Publications, Regions, and Internal. The 'Internal' section is active, showing a sidebar with links to Profile, Users, Add User, Institutions, Target Regions, Instructions, Team changes, and Data Privacy. The main content area is titled 'Regions / HSW' and features a toolbar with tabs: Affiliations, Description, ZIK, WEK, GHK, ZAK, Logger (highlighted with a red box and arrow), Vegetation, and Public. Below the toolbar, there is a section for 'Export' and a summary of the region: 'currently no picture uploaded for the public area', 'NE-Alps / Hochschwab', 'Established: 2001', and 'Surveys/finished in database: 5/4'. A list of institutions is also shown, including the Austrian Academy of Sciences and BOKU - University of Natural Resources and Life Sciences.

- On the temperature logger page, you can view and edit the temperature data of your target region. However, if you like to add new raw data click the ‘**Add new temperature data**’ button.

The screenshot shows the 'Temperature data for HSW' page. The 'Logger' tab is active, and the 'Add new temperature data' button is highlighted with a red box and a red arrow. Below the button, there is a search bar and a table of temperature data entries. The table has columns for location (GHK, E22), serial number (A50322, A510E2, A5108A, A52013, A5111A), date (2022-08-04), time (12:46, 12:26, 15:16, 14:01, 14:36), UTC (-2), deviation (-2, 2967, -466, 13777), type (MLog-5), event (inst., uninst.), distance (Dist 11, Dist 31), and edit options (O, C, Edit). The table shows five entries of temperature data.

Location	Serial	Date	Time	UTC	Dev.	Type	Event	Dist 11	Dist 31	O	C	Edit
GHK E22	A50322	2022-08-04	12:46	-2		MLog-5	inst.			✓	✓	✎
GHK E22	A510E2	2022-08-04	12:26	-2	2967	MLog-5	uninst.			○	○	✎
GHK HSP	A5108A	2022-08-04	15:16	-2	-466	MLog-5	uninst.			○	○	✎
GHK HSP	A52013	2022-08-04	14:01	-2		MLog-5	inst.			✓	✓	✎
GHK N12	A5111A	2022-08-04	14:36	-2	13777	MLog-5	uninst.			○	○	✎

5. To upload new temperature data, please fill in the required **metadata** information, which you can find on your field sheets (see Form 4). Please also see additional information about the required metadata below.

Temperature data for HSW

Dismiss

Add new temperature logger data:

Plot Information:

HSW

submit * ▾

plot * ▾

Researcher:

Researcher 1 ▾

Logger Information:

logger serial *

logger type * ▾

logger event * ▾

Time Information:

local date *

local time *

Difference to UTC *

Deviation (seconds)

Additional Information:

Distance to 11

m

Distance to 31

m

☐ open ☐ closed

comments

Select file (csv,bxt,xlsx,hobo,g2d,dtf,dcv,zip,7z,rar): *

Datei auswählen

Keine Datei ausgewählt

Save Metadata and Upload File

Form 4 Temperature loggers

Country code ¹⁾		Summit code ¹⁾	
Target region code ¹⁾		Full summit name	

First installation

Quadrat code ¹⁾	Logger serial ²⁾	Logger type ³⁾	Start date	Start time ⁴⁾ (local time)	UTC diff. ⁵⁾	Dist-11 ⁶⁾	Dist-31 ⁷⁾	Photo check open ⁸⁾	Photo check closed ⁸⁾	Researcher(s)	Comments
								☐	☐		
								☐	☐		
								☐	☐		
								☐	☐		

Data read-out

Quadrat code ¹⁾	Logger serial ²⁾	Logger type ³⁾	Stop date	Stop time ⁹⁾ (local time)	Researcher(s)	Comments ¹⁰⁾	New logger serial ¹²⁾	Logger type ³⁾	Start date	Start time ¹⁾ (local time)	Photo check open ⁸⁾	Photo check closed ⁸⁾
											☐	☐
											☐	☐
											☐	☐
											☐	☐

De-installation needed¹¹⁾

1) See Box 6.1 for coding. 2) The logger serial number is usually indicated somewhere on the logger and is the reference number for identifying a logger when launching and reading out the data. 3) Indicate the logger type, e.g. GeoPrecision, TidBit or TinyTag. 4) Indicate the time after finishing the installation of each logger in the field (use your local time). 5) Indicate the time difference, i.e. the number of hours to be added or subtracted from your local time to the UTC/GCT (Coordinated Universal Time/Greenwich Mean Time); for example, if the local time is 14:00 and UTC 12:00, the value to be entered is -2. 6) Distance (in m with two decimal places) from the logger to the left lower cluster corner (e.g. p5m-S11; see Fig. 4.5). 7) Distance (in m with two decimal places) from the logger to the right lower cluster corner (e.g. p5m-S31; see Fig. 4.5). 8) Photo check: Check the box after photos are taken to be sure that the photo documentation is complete (documentation of the logger position with the hole open and documentation after the hole is closed with substrate material; see Fig. 4.5). 9) Indicate the time of data read-out (use your local time). In cases where de-installation is necessary indicate the time before digging out the logger. 10) Comment on logger failure and de-installations; in any case when you de-install the logger, indicate DR for data read-out (e.g. in the case of TidBit loggers), BC for battery change, or LC for logger change. 11) Only to be filled out when you de-install the logger. 12) Indicate the new logger serial number. In cases of installing the same logger (battery change or TidBit data read-out), indicate "ident" for identical logger.

Here you can find some additional information, which may help you to fill in the required fields:

- i. The field 'plot' refers to 'Quadrat code' in Form 4. As the logger is usually buried in the center of the quadrat, the usual entries are N22, E22, S22 and W22. However, if you buried the logger in another cell of the 3x3 quadrat please adjust this information accordingly.
- ii. The logger serial number is unique and is written on the logger itself, please take it from the field sheet.
- iii. The field 'Logger type' specifies the product of temperature loggers. Most commonly used temperature loggers are MLOG-5 (Geoprecision) and TidBit (Onset – HOBO data loggers).
- iv. In the field 'logger event', you can choose between 'installation', 'read-out', and 'uninstallation'. Please add an 'installation' event every time a logger is installed. This includes the first installation, logger replacement, and battery changes where the logger is dug out and reused (as the time series is interrupted and needs to be split). A 'read-out' refers to downloading data via a remote device (e.g. a dongle or receiver) while the logger remains in place and the time series continues. Use 'uninstallation' when a logger is exchanged or permanently removed. In most cases, data are also read out during uninstallation - However, unlike a 'read-out' event, the logger is dug out and the time series is interrupted. Both 'read-out' and 'uninstallation' events must be linked to a time series file that needs to be uploaded in the next step.
- v. In the field 'Difference to UTC' please write the difference of the time zone the logger was placed (i.e., of your target region) to the Coordinated Universal Time (usually summertime).
- vi. 'Deviation (seconds)': If the logger clock deviates from hourly measurements, please record the deviation here.
- vii. Fill in the distance to the 3x3 quadrat cells 11 and 31, respectively (see Form 4 in the field manual or the screenshot on page 3 in this manual for details).
- viii. You can upload photos from opened and closed soil at the location where you buried the logger as **Zip-file**.

6. When you have entered all metadata, please select the temperature time series of your temperature logger by clicking the 'Select file' button – **Please only upload original raw data in .csv or .txt format.**

The screenshot shows a web form titled "Temperature data for HSW" with a "Dismiss" button in the top right. Below the title is the instruction "Add new temperature logger data:". The form contains several sections: "Plot Information" with a "HSW" button, "summit *" dropdown, and "plot *" dropdown; "Researcher:" with a "Researcher 1" dropdown; "Logger Information:" with "logger serial *" text input, "logger type *" dropdown, and "logger event *" dropdown; "Time Information:" with "local date *" calendar icon, "local time *" clock icon, "Difference to UTC *" text input, and "Deviation (seconds)" text input; "Additional Information:" with "Distance to 11" and "Distance to 31" each followed by a "m" unit button, and checkboxes for "open" and "closed". Below these is a "comments" text area. A red arrow points down to a "Select file (csv,txt,xlsx,hobo,g2d,dtf,dcv,zip,7z,rar) : *" label. Below this label is a "Datei auswählen" button and the text "Keine Datei ausgewählt". At the bottom of the form is a large grey button labeled "Save Metadata and Upload File".

7. Before submitting the data, please check the metadata for errors and consistency. A common issue is an incorrect change in plot assignment over the years.
8. To upload the temperature time series to the GLORIA database, click the 'Save Metadata and Upload File' button – Job done!

This screenshot shows the same "Temperature data for HSW" form as above. In this view, the "Datei auswählen" button and "Keine Datei ausgewählt" text are still present, but the red arrow points down to the "Save Metadata and Upload File" button at the bottom of the form, which is now highlighted with a red rectangular box.

Thank you for your great collaboration – The GLORIA Coordination Team :)