

## Permanent Plots

- near surface temp
- gravel/geophon
- ▲ hydrographic
- ◆ subsonic (risk ass.)
- ⊙ webcam
- ⊕ climate station
- ▭ Watershed Johnsbachtal
- ▭ National Park

Nationalpark Gesäuse



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Kartengrundlage: ©GIS Steiermark  
Datum: 09.11.2022 08:40  
Koord.Syst: WGS84 UTM Zone 33N

## Site Gesäuse National Park

<https://deims.org/f475dd9a-968f-4640-bac4-1eac12987e67>

Full-scale biotic monitoring  
(flora, fauna and habitats)  
est. 2002, 120 km<sup>2</sup>

## Site Johnsbachtal

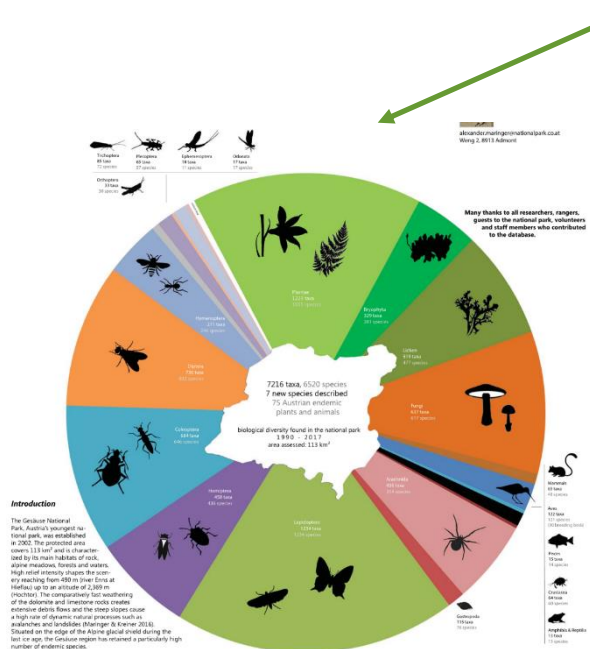
<https://deims.org/b3ecdade-2c03-4ef2-85fe-e9c8f9e65a84>

Research on abiotic parameters and  
ecosystem dynamics  
est. 2009, 65 km<sup>2</sup>

## Site Gesäuse National Park

<https://deims.org/f475dd9a-968f-4640-bac4-1eac12987e67>

### Observed properties

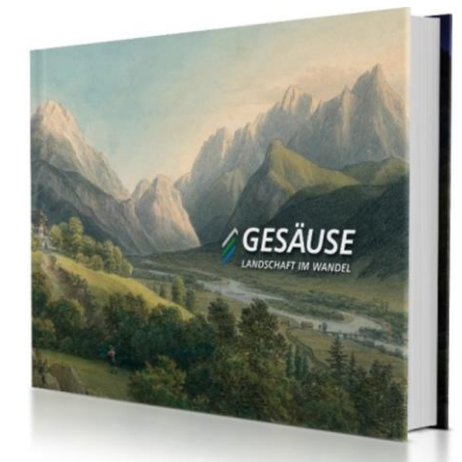


ecosystem parameter					atmospheric parameter		
benthic invertebrate abundance	deadwood volume	disturbance pattern	diversity index	ecosystem structure	air temperature	snow depth	wind direction
birds abundance	faunistic diversity	habitat structure	macrofauna abundance	naturalness	precipitation intensity	snow water equivalent	wind speed
deadwood decaying rate	floristic diversity	plant species composition	species composition	species richness	landscape parameter		biological parameter
deadwood position	forest structure	species abundance	vegetation layer composition	vegetation layer structure	land cover	land use	plant cover
					land use intensity	landscape connectivity	population size
					landscape composition	landscape fragmentation	environmental parameter
							abiotic heterogeneity



MARINGER, A. (2017): Biodiversity Assessment in the Gesäuse National Park. 6<sup>th</sup> Symposium for Research in Protected Areas.  
DOI: 10.13140/RG.2.2.35045.09442

HASITSCHKA, J.; HÖBINGER, T.; KREINER, D. (Hg.) (2014): Gesäuse. Landschaft im Wandel : wildes Wasser - steiler Fels. Weng im Gesäuse: Nationalpark Gesäuse. ISBN: 9783901990106





# WegenerNet Gesäuse Region



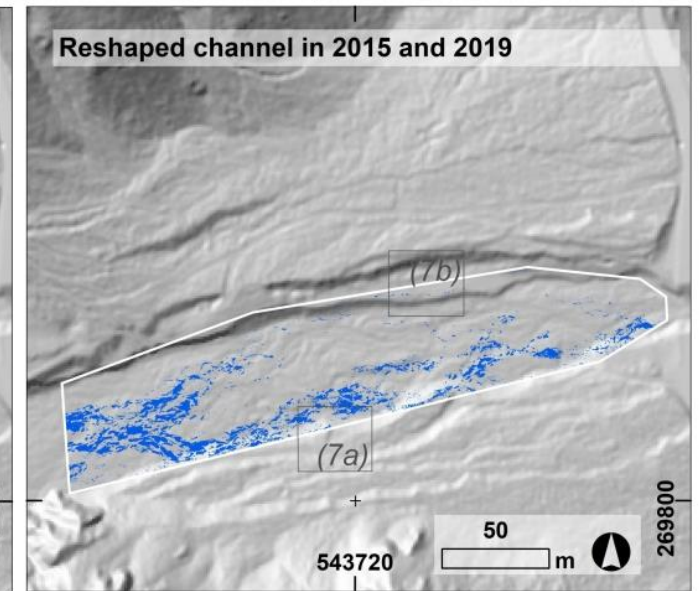
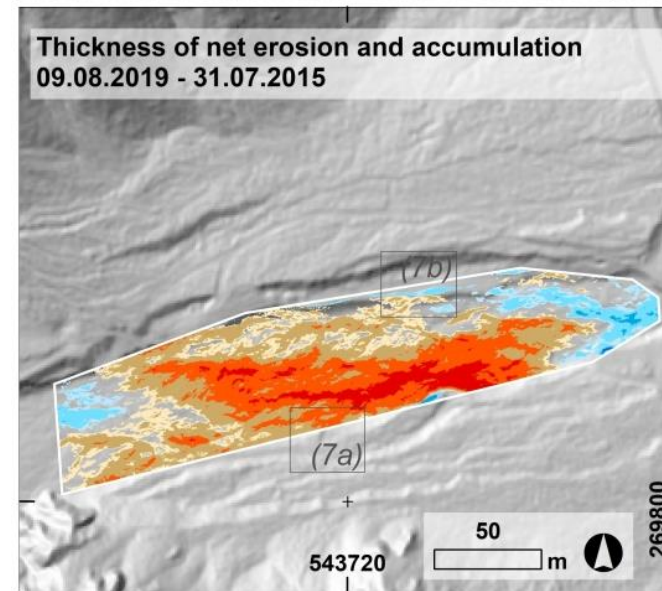


# Other research/observations done in the area (Johnsbachtal)

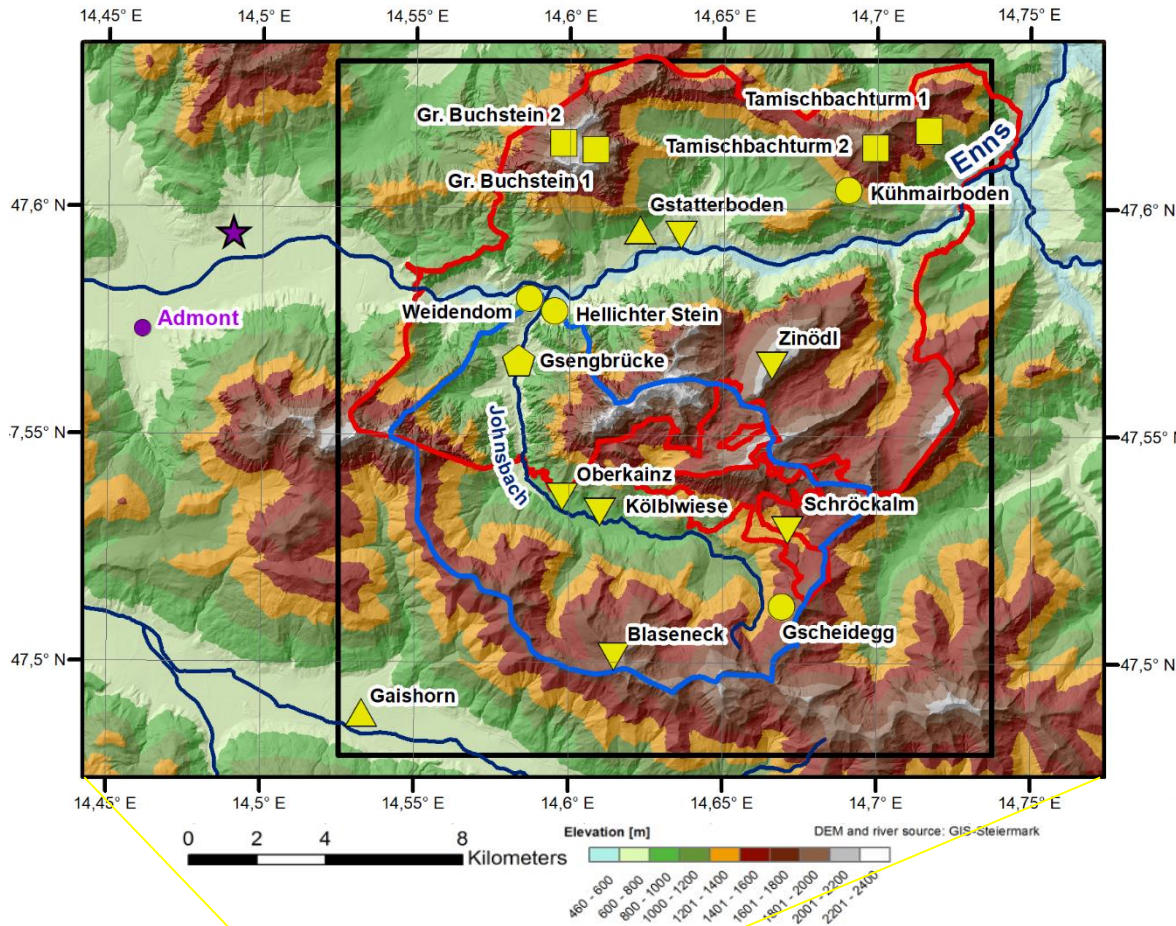


## Monitoring of erosion and accumulation in Langgriesgraben by means of UAV measurements

Source.  
Seier, G.; Schöttl, S.; Kellerer-Pirklbauer, A.; Glück, R.; Lieb, G.K.; Hofstadler, D.N.; Sulzer, W. Riverine Sediment Changes and Channel Pattern of a Gravel-Bed Mountain Torrent. *Remote Sens.* **2020**, *12*, 3065. <https://doi.org/10.3390/rs12183065>







## WegenerNet Gesäuse Region:

- **15 climate stations** in an alpine setting ~16 km x 17 km
- 2 hydrographic stations
- Station altitudes from ca. **600 m to 2200 m**
- Measured parameters: Temperature, relative humidity, precipitation, snow depth, wind, radiation and air pressure
- **10-min** measurement interval
- Operating since 2007; stations were successively added

## Locations / station operators:





# Current data access to WegenerNet

<https://wegenernet.org/portal/gsr/>

Data description:

<http://dx.doi.org/10.5194/essd-13-1307-2021>

DEIMS Integration  
über ESFRI Projekt

The screenshot displays the WegenerNet Datenportal interface. At the top, the browser address bar shows the URL <https://wegenernet.org/portal/gsr/>. The main navigation bar includes links for 'STATIONS DATEN', 'GITTER DATEN', 'BEDIENUNG', and 'LINKS'. Below this, a secondary menu offers 'Karte', 'Stationen', 'Datenauswahl', 'Diagramme', and 'Download'. The left sidebar contains a 'Stationsfilter & Auswahl' section with a 'Zoombereich:' dropdown set to 'Gesäuse', and a 'Direkte Stationsauswahl:' section with a search box containing 'Stati'. The 'Stationstypfilter' section has several checked options: 'Basisstationen', 'Basisspezialstationen', 'Primärstationen', 'Referenzstationen', and 'Externe Stationen'. The main content area, titled 'Karte der Stationen', shows a topographic map of the Gesäuse region with numerous yellow circular markers indicating station locations. Key geographical features and peaks are labeled, including 'Kleiner Buchstein 1990 m', 'Hochtor 2369 m', 'Reichenstein 2251 m', 'Leobner 2036 m', 'Zeritzkappel 2125 m', 'Wildfeld 2043 m', and 'Eisenerzer Alpen'. The map also shows the 'A9' highway and the 'Gesäuse' valley.

Within the ÖAW ESFRI project, we will perform the following tasks:

1. Merging of the NP Gesäuse and Johnsbachtal to a new cluster site "Gesäuse"
2. Transfer important existing meteo and other standard observation (SO) data (hydrological, soil) to DEIMS
3. Evaluate other existing data for their use to generate SOs (including socio-economic, statistical, geoinformation, remote sensing data sets)
4. Perform needed processing to data of (3) to generate specified SOs in a highly automated manner
5. Preprocess all data to meet the structure requirements in DEIMS
6. Gap analysis including cost evaluation of missing SOs





protected area IUCN Cat. II  
managed entity



rural area with extensive farming  
few residents

## „clustering“ concerns:

What will be our scope?

How to address the high diversity in a variety of aspects?

What SOs did we miss so far under the WAILS approach?