



## Newsletter 1/2016

### Announcements

#### **The Long Night of Research (22.04.2016, Institute of Botany and other locations)**

The Alpine Research Centre Obergurgl will participate at the Long Night of Research 2016. The stand will be located at the Institute of Botany (Sternwartestr. 15, Innsbruck), presenting various alpine research topics such as recent glacier retreat, subsequent glacier foreland succession, and the meaning of traditional field names of the inner Ötz valley. Additionally, information on the University Centre, the Nature Park Ötztal and other partner institutions will be available.

For more information on the Long Night of Research please visit the website:

<http://www.langenachtderforschung.at/index.html>

#### **Summer School on Alpine Field Ecology –*Techniques to assess changes in high altitudes* (22. – 27.08.2016, University Centre Obergurgl)**

This summer school is offered to Post Docs, PhDs, and to Masters which have already terminated their degree. Obergurgl (1930 m a.s.l., Ötztal, Tyrol, Austria) is an ideal site to learn new techniques for the assessment of changes in high altitude ecosystems like stone pine forests, dwarf shrub communities, alpine grasslands, alpine rivers and glacier forelands. Researchers from the University of Innsbruck will lead the field courses and offer the possibility to work with their equipment.

This Summer School is an international course and will be held in English. For further information, please visit our website: <http://www.uibk.ac.at/afo/summer-school-of-alpine-field-ecology-2016/>

## Open day of the Alpine Research Centre (30.09.2016, University Centre Obergurgl)



Pictures of the open day 2015 (photo: University Centre Obergurgl)

The Alpine Research Centre and the University Centre organise an open day in Obergurgl on a yearly basis. This year, we invited schools from Innsbruck to bring this event to broader recognition. At the open day, researchers of the University of Innsbruck and partner institutions will present interesting facts and new details about their research and explain scientific instruments.

The full programme is not available yet but will be published on our website later on (<http://www.uibk.ac.at/afo/>).

## ‘In the name of research’ – monitoring of the ant *Formica suecica* in the inner Ötz valley (30.07.2016, University Centre Obergurgl)



*Formica suecica* (Foto: F. Glaser)

The volunteering project of the Nature Park Ötztal continues in 2016 (first announcement see newsletter 02/15). After a very successful monitoring season in 2015, the Nature Park is seeking support from nature and science enthusiasts to reveal further information on the distribution of this rare species in the inner Ötz valley.

For further information and registration to this programme, please visit the webpage of the Nature Park Ötztal (<http://www.naturpark-oetztal.at/>). It is further noteworthy, that this project is nominated for the Citizen Science Award 2016 of the OeAD (<http://www.citizenscience.at/>).

## Travelling the Alps in an alternative way – guided excursions with scientific background (09.-17.07. & 13.-20.08.2016)

The best way to explore alpine environment may be by foot. André Baumeister M.Sc., geographer at the University of Bochum, cooperation partner of the Alpine Research Centre Obergurgl, and experienced professional hiking guide offers two one-week tours for nature enthusiasts also providing profound scientific information on the landscape, which would remain hidden at most

other hiking trips. Both tours – one crossing the Alps, the other hiking the inner Ötztal Alps – offer the opportunity to visit the University Centre Obergurgl.

For more information on both tours, please visit: [https://www.geographie.ruhr-uni-bochum.de/fileadmin/physik/AngewandtePhysischeGeographie/FRAM\\_Info\\_Alpen\\_final.pdf](https://www.geographie.ruhr-uni-bochum.de/fileadmin/physik/AngewandtePhysischeGeographie/FRAM_Info_Alpen_final.pdf)

## Summit. Crosses-Books-Symbols (30.07. – 14.08.2016, Vent)

As part of the cultural festival ARTeVENT which takes place between July 30<sup>th</sup> and August 14<sup>th</sup>, 2016 in the Ötztal mountaineering village of Vent, summits are not only admired from a distance and



(photo: Ursula Scheiber)

climbed in excitement but also explored from the viewpoints of literary and cultural studies and the natural sciences. Readings, talks, exhibitions, like the *Berglese* book fair, a children's program, and guided walks open up ways to the top that invite us to observe, to listen, and to wonder.

Visit <http://www.vent.at/artevent> for further information.

## Young researchers days of the „Junge Uni“ (29.-31.08.2016, University Centre Obergurgl)

In late August, young researchers between 10 and 14 years can experience alpine research in Obergurgl. The youths will trace a rare species, examine an ancient encampment and learn about climate change and its influence on glaciers. The young researchers will be accompanied by staff of the University of Innsbruck and accommodated at the University Centre Obergurgl. Registration is open from end of June onwards at: <http://www.uibk.ac.at/jungeuni/veranstaltungen/ksu/>

## Recent research

### Research funding of the Alpine Research Centre Obergurgl, 2015-16

In 2015, the Alpine Research Centre Obergurgl and the rectorate of the University of Innsbruck again advertised the funding of two scientific pilot studies in the inner Ötz valley.

The submitted proposals were evaluated and ranked by external and internal reviewers. The two winning projects are:

- ***Soil fungi and collembolans in early successional stages of a glacier foreland as a basis to investigate trophic interactions of pioneers***, submitted by Univ.-Prof. Mag. Dr. Ursula Peintner
- ***Biological ice nucleators for artificial snow production***, submitted by Assoz.-Prof. Dr. Martin Tollinger

On October 9<sup>th</sup> 2015, the official award ceremony took place at the parlour of the rectorate with PD Dr. Sarah Matt-Leubner, head of the department for business cooperation and shareholding, congratulated the awardees.



Group picture at the award ceremony, f.l.t.r.: Brigitta Erschbamer (Director Alpine Research Centre Obergurgl), Nikolaus Schallhart (Coordinator ARCO), Michaela Hittorf, Rüdiger Kaufmann (Deputy Director ARCO), Ursula Peintner, Martin Tollinger, Sara Matt-Leubner

(picture: Stefan Hohenwarter; Public Relations Office, University of Innsbruck)

Now, both projects are running. For more information, please visit:

<http://www.spinrelax.at/index.php/projects/inps> or <http://www.uibk.ac.at/afo/foerderung/>

We wish all people involved a successful project.

## Further projects

- Erschbamer, B. & Mayer, R.: *Effects of climate and land use change in high altitude ecosystems of the Biosphere Reserve Gurgler Kamm (Oetz Valley/Central Alps)*; MAB-ÖAW
- Erschbamer, B.: *Phytomassenproduktion und Bodenchemie von beweideten Rasen und Niedermooren in Obergurgl*; Leopold-Franzens-Universität Innsbruck – Forschungszentrum Berglandwirtschaft
- *Permaqua – Permafrost und seine Auswirkungen auf Wasserhaushalt und Gewässerökologie im Hochgebirge*; Programm Interreg IV Italien-Österreich, Europäischer Fond für regionale Entwicklung der Europäischen Union

# Researchers in Obergurgl



**ao. Univ.-Prof. Mag. Dr. Kurt Nicolussi**  
**Institute of Geography, University of Innsbruck**

Kurt Nicolussi is an absolute expert of dendrochronology i.e. the science of tree-ring analyses on living trees and subfossil wood. He provides crucial data for reconstructing prehistoric climatic events and its ecological impacts such as shifts of timberline, advances and retreats of glaciers and evolution of bogs. Even for archeologists, dendrochronology is an indispensable tool for absolute dating.

Due to the broad applicability of dendrochronology, Kurt Nicolussi and his team is involved in a lot of studies in the Ötz valley and adjacent areas, for example at the bogs near Obergurgl, the rockslide near Köfels and at the Gepatschferner

in the Kauner valley. He is a member of the advisory board of the Alpine Research Centre Obergurgl, continual author in the publications of the Alpine Research Centre and head lecturer of the field training course for geography students in Obergurgl.

Of course, this is just a small excerpt of Kurt Nicolussi's scientific activities. For more information on his research, please visit: <http://www.uibk.ac.at/geographie/personal/nicolussi/>.

## Publications

### Recently published scientific articles from the area around Obergurgl

- Erschbamer, B.; Mayer, R.; Mallaun, M. & Unterluggauer, P. (2015): Alpine Pflanzengesellschaften unter dem Einfluss von Sukzession und Klimawandel. *BERICHTE DER REINHOLD TÜXEN GESELLSCHAFT* 27, 187-200
- Nickus, U.; Abermann, J.; Fischer, A.; Krainer, K.; Schneider, H.; Span, N. & Thies, H. (2015): Rock Glacier Äußeres Hochebenkar (Austria) – Recent results of a monitoring network. *ZEITSCHRIFT FÜR GLETSCHERKUNDE UND GLAZIALGEOLOGIE* 47/48, 43-62
- Sint, D.; Thurner, I.; Kaufmann, R. & Traugott, M. (2015): Sparing spiders: faeces as a non-invasive source of DNA. *FRONTIERS IN ZOOLOGY* 12:3
- Sattler, B. (2015): Living Cryosphere. *PAN EUROPEAN NETWORKS: SCIENCE & TECHNOLOGY* 17, 256-257
- Walder, T. & Erschbamer, B. (2015): Temperature and drought drive differences in germination responses between congeneric species along altitudinal gradients. *PLANT ECOLOGY* 216:9, 1297-1309
- Winkler, E.; Marcante, S. & Erschbamer, B. (2015): Demography of the alpine pioneer species *Saxifraga aizoides* in different successional stages at the glacier foreland of the Rotmoosferner (Obergurgl, Ötztal, Österreich). *TUEXENIA* 35, 267-283

# Pictures from Obergurgl



Scarce snow cover on Mt Hohe Mut at the end of January 2016



This little fellow is in hibernation mode.

## Contact

*If you have any suggestions for the next issue, any questions or if you don't want to receive any further newsletter please contact [Klaus.Schallhart@uibk.ac.at](mailto:Klaus.Schallhart@uibk.ac.at).*

*For more information on events, publications and other activities of the Alpine Research Centre please visit <http://www.uibk.ac.at/afo/aktuelles/index.html.en>.*

*We hope you enjoyed reading this issue!*



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**Obergurgl**

