

Soil management practices in the Alps

A selection of good practices - Case Study 6



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SOIL MANAGEMENT PRACTICES IN THE ALPS
*A selection of good practices for the sustainable
soil management in the Alps*

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Soil education trails in Austria

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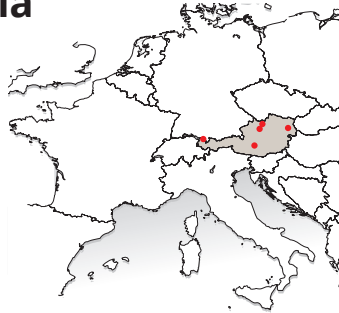
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Country, Region:	<i>Austria, Federal states of Vorarlberg, Vienna, Salzburg and Upper Austria</i>
Organisation:	<i>e.g. Vorarlberg Environmental Institute, "Landreichs" Agrarium, Community Krenglbach- Zoo Schmieding, Tiergarten Schönbrunn (Vienna Hietzing), Botanical Garden (Linz), Thalheim (Wels)</i>
Sector:	<i>all sectors</i>
Land uses:	<i>not known; various</i>
Main soil threat:	<i>erosion, organic matter decline, compaction, sealing, contamination, nutrient depletion, loss of soil biodiversity</i>
Key soil ecosystem services:	<i>Multiple functions and services of soils shall be demonstrated without focusing on one specific service.</i>
Summary:	<i>Through playful engagement and hands-on learning, these soil trails are intended to inform both children and adults about the relationship between landscape development, soil, and society. It is reasonable to conclude that individuals with greater understanding will be more likely to make environmentally-positive decisions; ideally discouraging actions such as sealing, contamination, loss of soil biodiversity, etc. Once soil trails are established, they will be permanently present and have a permanent impact.</i>
Keywords:	<i>soil trails, education, information about soils</i>



Photo: Alois Simon

Background and description of the problem

Society at large is mainly unaware of soils and their functions, services and importance for the ecosystem. One reason for this is that the subject of soils is rarely covered in Austrian school curricula.

With the help of soil education trails, this subject shall be brought to the attention of all people in a playful way and contribute to the education of school children, teachers and adults.

Expected improvements / contribution to better soil management

The main objective of the soil trails is to present the importance of soils for humans and ecosystems and to show the consequences of soil disturbances.

Arranged along hiking trails, soil trails provide information on soils and their relationship to landscape development. A soil trail can inform about soil properties, the history of the landscape of a particular region and the development and evolution of soils, as well as about soil functions and ecosystem services.

Through presenting different soil profiles and by supplementing them with individual explanations, soil awareness and knowledge among visitors can be promoted.

Stakeholders and knowledge transfer

Target groups include school-age children (1st – 13th grade), hikers, travel groups, families and everyone who is interested in the environment.

Stakeholders mainly include municipalities.

Data and methods

To create a soil trail, it is helpful to have at least some information about land use, soil types and soil management practices. With this knowledge, it is possible to select sites that represent the diversity of soils and soil-forming factors within a certain area.

New data can be created by describing and analysing the soils at specific sites.

The projects are ongoing. Costs between individual trails vary and are allocated between creation of a trail concept, development of information boards, maintenance of hiking paths and soil profiles.

Results

The results are informative initiatives that bring the attention to the subject of soil.

All Austrian soil trails are listed on the homepage: www.bodeninfo.net including links that provide more detailed information.

Transferability and applicability to best soil management practice

The soil trails are easily transferable across many regions. However, Alpine regions are often characterised by greater soil diversity than non-mountainous areas. Thus, soil trails in the Alps are especially interesting as many different soils can be explored.

Soil trails are suitable for excursions since the trails are usually marked and the prepared information is understandable for non-experts. The main issue is finding

an area that is suitable for a soil trail – with different soil types to be presented – and maintaining the soil profiles.

Environmental and climate change impact

A better knowledge of soils and understanding of their functions can raise awareness in the society. In the future, this awareness can lead to a change in behaviour and decisions that prevent further soil degradation.

Photos / illustrations / maps



Figure 24: Soil education trails and its information panels and soil profiles (Photo: Alois Simon).

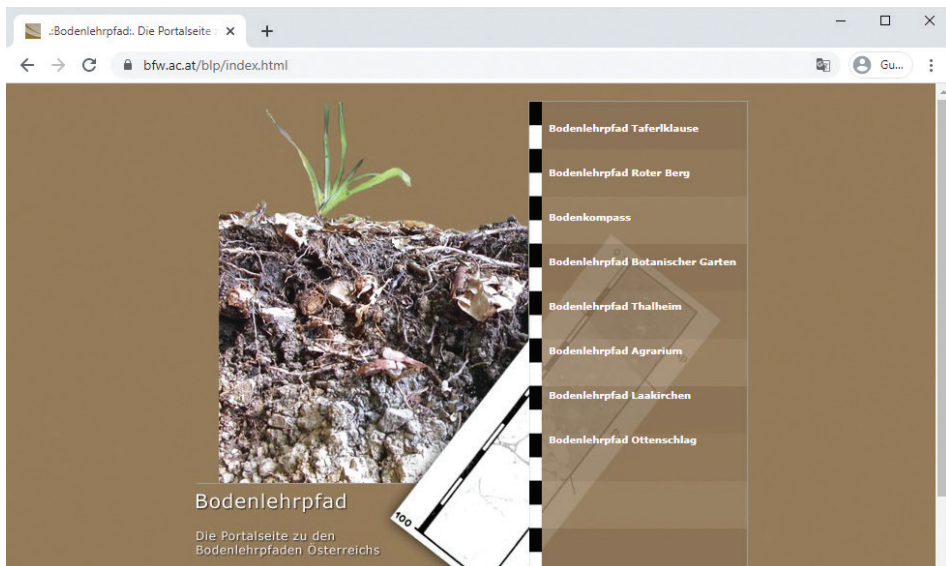


Figure 25: Homepage www.bodenlehrpfad.at with an overview of all soil education trails.



Figure 26: Example of an information board for the soil education trail.

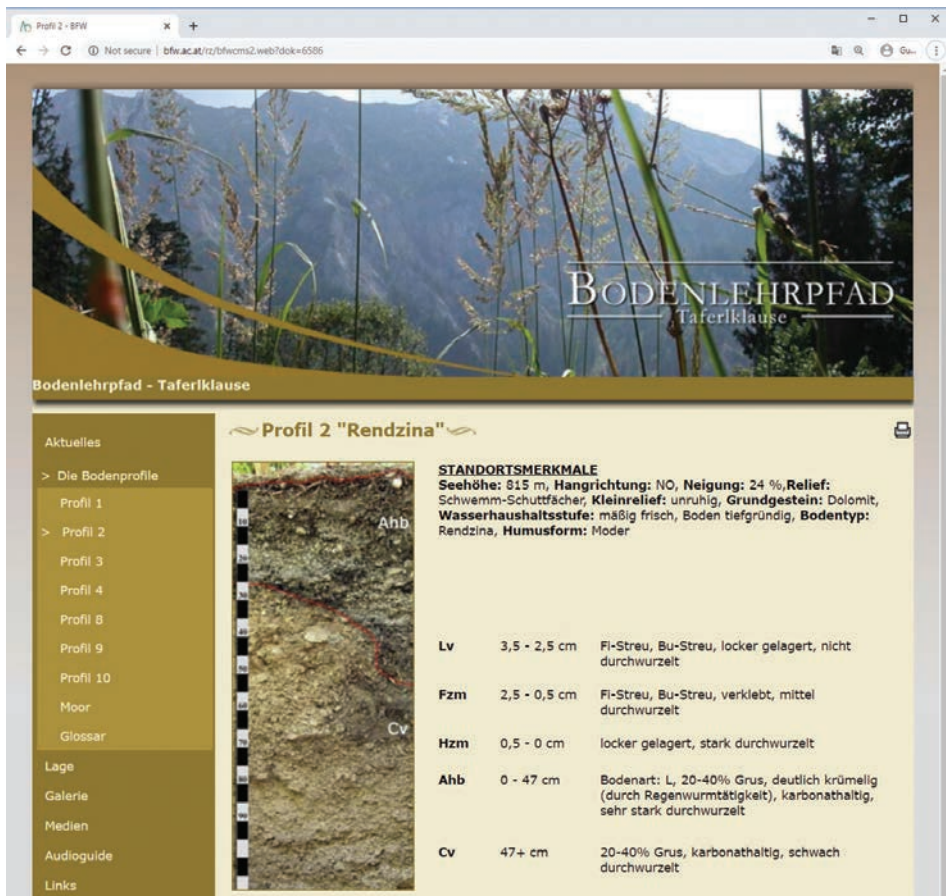


Figure 27: Example of the Taferlklausen soil education trail with a soil profile

References and further reading

A map and a list containing all Austrian soil trails

Bodenbildungsnavigator – Lehrpfade (Soil Formation Navigator – Trail):

<https://www.bodeninfo.net/produkte-und-informationsmedien/bodenbildungsnavigator/lehrpfade/>

Bregenz (Vorarlberg)

Faszination Boden (Fascination soil):

<https://vorarlberg.at/documents/21336/153654/Faszination+Boden+Flyer/0dd16827-a6ef-4c39-9032-837f581a8926>

Montfortstraße 4, 6900 Bregenz

+43 (0) 5574 511 42099

Mariapfarr (Salzburg)

Bodenkulturweg (Soil culture path)

<http://www.bodenkulturweg.at/>

Am Weiher 175, 5571 Mariapfarr

+43 (0) 64 738 766

Steinbach am Attersee / Gmunden on Traunsee / Höllengebirge (Upper Austria)

Waldbodenlehrpfad Taferklause (Taferklause forest soil trail):

<http://www.bodenlehrpfad.at/>

Laakirchen (Upper Austria)

Bodenlehrpfad Laarkirchen (Laarkirchen soil trail):

<https://www.land-oberoesterreich.gv.at/70252.htm>

Steinerkirchen a.d. Traun (Upper Austria)

Bodenlehrpfad Agrarium (Agrarium soil trail):

<http://www.bodenlehrpfad.at/>

Agrarium Almegg 11, 4652 Steinerkirchen a. Traun

Ottenschlag (Upper Austria)

Bodenlehrpfad Ottenschlag (Ottenschlag soil trail):

<http://www.ottenschlag.at/system/web/sonderseite.aspx?menuonr=221516850&detailonr=221516850>

Thalheim bei Wels (Upper Austria)

Bodenlehrpfad Thalheim (Thalheim soil trail):

<http://www.land-oberoesterreich.gv.at/70252.htm>

Linz (Upper Austria)

Botanischer Garten Linz (Linz Botanical Garden):

<http://www.land-oberoesterreich.gv.at/70252.htm>

Krengelbach (Upper Austria)

Krengelbacher Bodenroas (Krenglbache soil trail):

<http://www.land-oberoesterreich.gv.at/70252.htm>

Vienna

Boden lebt! Bei den Artenschutztagen im Zoo Schönbrunn (Soil is alive, species protection day's of the Schönbrunn Zoo):

<https://bodeninfo.net/produkte-und-informationsmedien/bodenbildungsnavigator/lehrpfade/boden-lebt-artenschutztage-schoenbrunn/>

Tiergarten Schönbrunn, Vienna Hietzing

Vienna

Bodenlehrpfad Roter Berg ("Red Mountain") soil trail:

<https://bodeninfo.net/produkte-und-informationsmedien/bodenbildungsnavigator/lehrpfade/bodenlehrpfad-roter-berg/>

Veitingergasse / corner Heinz-Nittel-Weg, 1130 Vienna

