



Universität für Bodenkultur Wien
Department für Wasser-Atmosphäre-
Umwelt

Department of Water, Atmosphere and Environment

Science on Order of the Environment



Facts and Figures (I) of BOKU Vienna

Students: 11.500

Scientific staff: ~1.200 (850 financed by projects)

Other staff: 430

Teaching, research and administrative facilities are located throughout Vienna at 20 different sites. Most of them are in the green districts – the 18th and 19th district – and are readily accessible by public transportation.

BOKU main building: A-1180 Vienna, Gregor Mendel-Strasse 33



Facts and Figures (II) of BOKU Vienna

Total budget: ~ EUR 100 mio.

External funds (2011): EUR 33 mio.

Number of ongoing projects: 750

Scientific publications (2011): ~2500

**Co-operation contracts with partner
companies and universities world-wide:** 331





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Umwelt

Major sites of BOKU



Vienna,
Türkenschanze,
Muthgasse





The key priorities of the Department in research and education are undoubtedly in the area of water and water bodies. The qualitative and quantitative aspects of the water cycle, hydrological processes, soil-water-plant-atmosphere interactions, including soil physical aspects, soil water management and engineering, soil and water conservation, water supply, water distribution and use, water resources planning and decision making, hydropower engineering, waste water management (waste water treatment), solid waste management, but also protection of natural water resources and hydraulic engineering, river morphology and sediment transport, water quality, hydrobiology and aquatic ecosystem issues as well as river restoration concepts and restoration ecology are themes of research in the Department.

In Austria there is no organisation which can offer a broader scope on 'water' in teaching and research.

Another current priority regards climate change. The Department plays a central role in Austrian climate change research, as well with regard to research activities as with coordination. It is obvious that climate change research not only will bring the department's units together in joint research activities, but will also create strong bonds to other BOKU Departments and beyond.

Department WAU



Universität für Bodenkultur Wien
Department für Wasser-Atmosphäre-
Umwelt

Institutes

Sanitary Engineering and Water Pollution Control (SIG)

Mr. Univ.Prof. Dipl.Ing. Dr. Raimund HABERL

Waste Management (ABF-BOKU)

Mrs. ao.Univ.Prof. Dipl.Ing. Dr. Marion HUBER-HUMER

Meteorology (BOKU-Met)

Mrs. O.Univ.Prof. Dr. Helga KROMP-KOLB

Hydraulics and Rural Water Management (IHLW)

Mr. Univ.Prof. Dipl.Ing. Dr. Willibald LOISKANDL

Water Management, Hydrology and Hydraulic Engineering (IWHW)

Mr. Univ.Prof. Dipl.Ing. Dr. Helmut HABERSACK

Hydrobiology and Aquatic Ecosystem Management (IHG)

Mr. ao.Univ.Prof. Dipl.Ing. Dr. Stefan SCHMUTZ

Safety- and Risk Sciences (ISR)

Mr. ao.Univ.Prof.i.R. Dr. Wolfgang KROMP



3 Locations

Muthgasse 18

Sanitary Engineering and Water Pollution Control (SIG)

Mr. Univ.Prof. Dipl.Ing. Dr. Raimund HABERL

Water Management, Hydrology and Hydraulic Engineering (IWHW)

Mr. Univ.Prof. Dipl.Ing. Dr. Helmut HABERSACK ([Extension in Muthgasse 107](#))

Hydraulics and Rural Water Management (IHLW)

Mr. Univ.Prof. Dipl.Ing. Dr. Willibald LOISKANDL ([Großenzersdorf](#))

Muthgasse 107

Waste Management (ABF-BOKU)

Mrs. ao.Univ.Prof. Dipl.Ing. Dr. Marion HUBER-HUMER

Türkenschanze

Meteorology (BOKU-Met)

Mrs. O.Univ.Prof. Dr. Helga KROMP-KOLB ([Exnerhaus](#))

Hydrobiology and Aquatic Ecosystem Management (IHG)

Mr. ao.Univ.Prof. Dipl.Ing. Dr. Stefan SCHMUTZ ([Max Emanuel Str. 17](#)) + [WASSERCLUSTER LUNZ](#)

Safety- and Risk Sciences (ISR)

Mr. ao.Univ.Prof.i.R. Dr. Wolfgang KROMP ([Borkowskygasse 4](#))

Sanitary Engineering and Water Pollution Control (SIG)

Herr Univ.Prof. Dipl.Ing. Dr. Raimund HABERL



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Department für Wasser-Atmosphäre-Umwelt

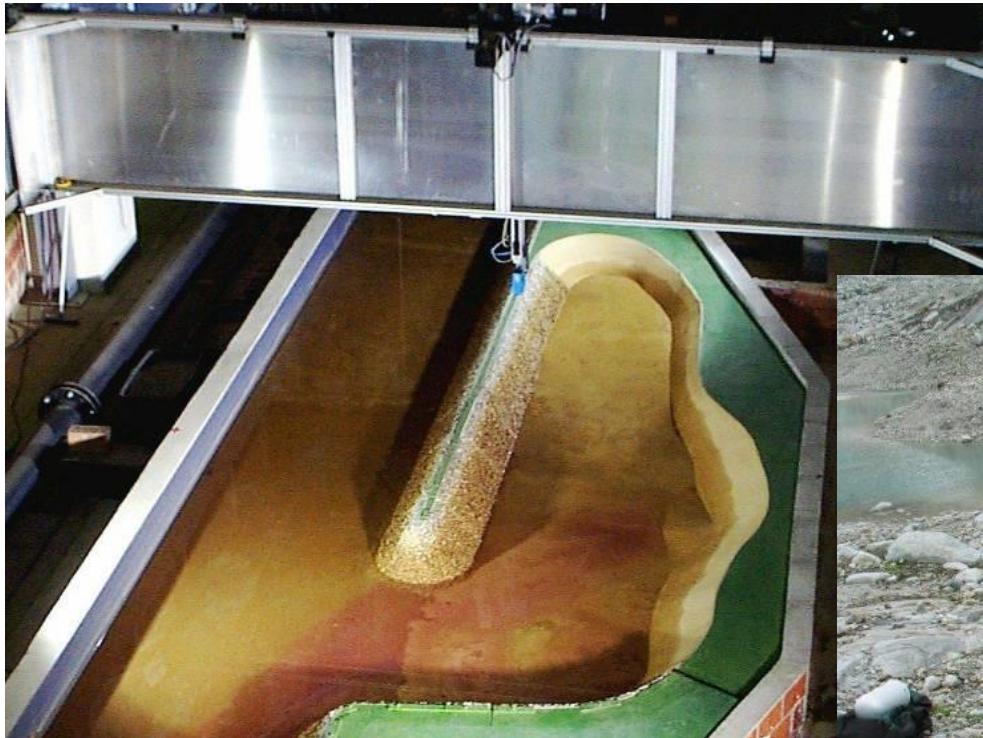


Water Management, Hydrology and Hydraulic Engineering (IWHW)

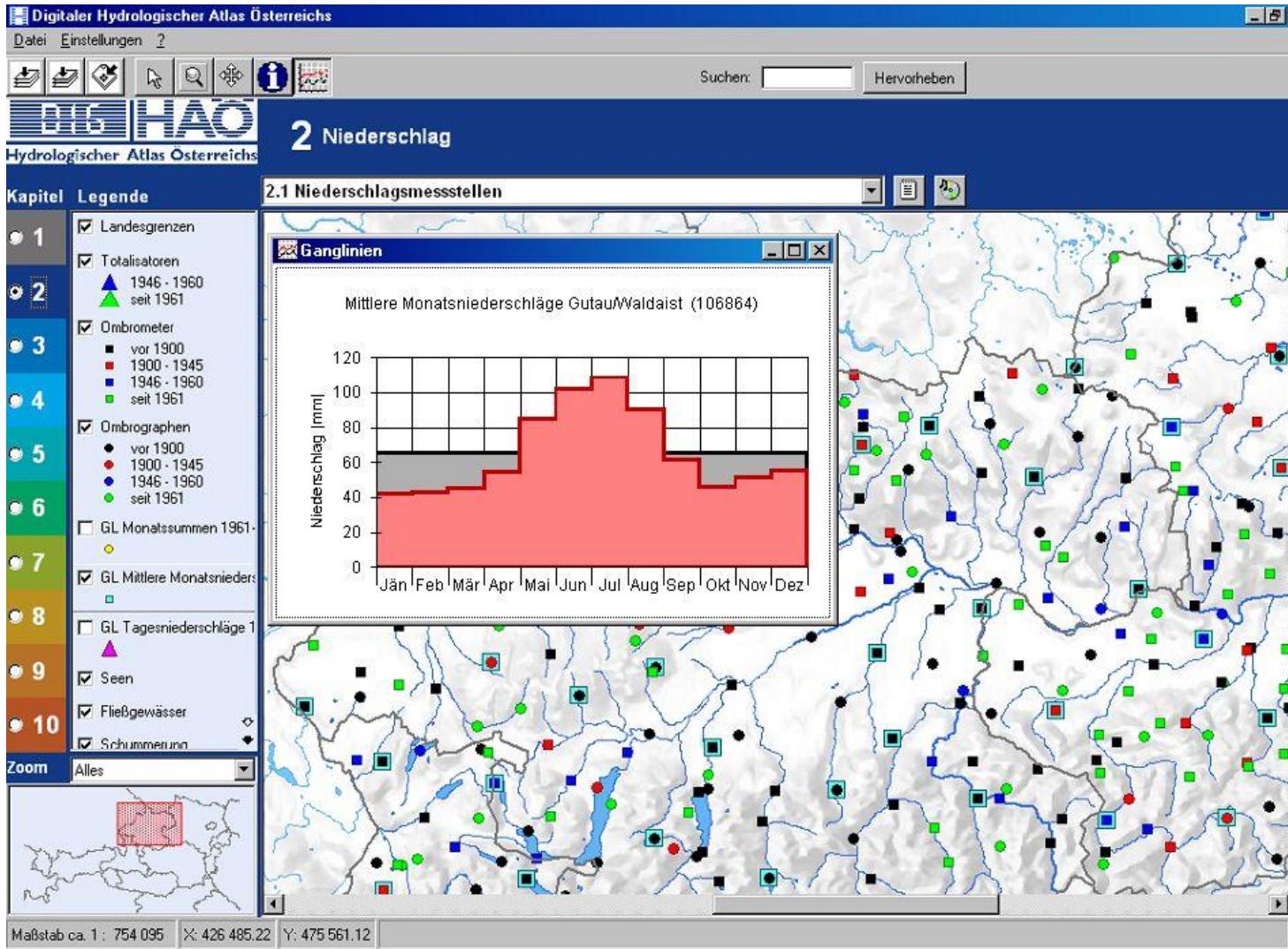
Herr Univ.Prof. Dipl.Ing. Dr. Helmut HABERSACK



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Hydrographischer Atlas Österreichs



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Hydraulics and Rural Water Management (IHLW)

Herr Univ.Prof. Dipl.Ing. Dr. Willibald LOISKANDL



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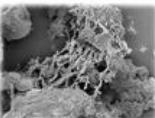




Research



Landfilling of inorganic waste
Landfilling of organic waste
Landfill aftercare
Landfill remediation



Organic matter in waste
Development of organic matter over time
Compost quality
Biological Treatment

Waste generation and prognosis
Waste prevention
Eco-design
Waste disposal systems
Assessment in waste management



Service



for students
for public authorities
for private organisations

Library
e-learning
Teaching material

Consulting
Specific Analytical Methods
Supply and interpretation of environmental data
Provide information

Teaching and Post Graduate Courses



High quality courses
for B.Sc., M.Sc. and PhD programs
„University meets Public“
Textbooks



Advanced Training Courses:
Abfallwirtschaftsbeauftragter
Conferences:
BOKU-Waste Conference 2005





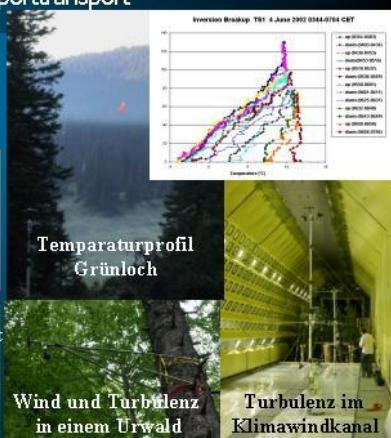
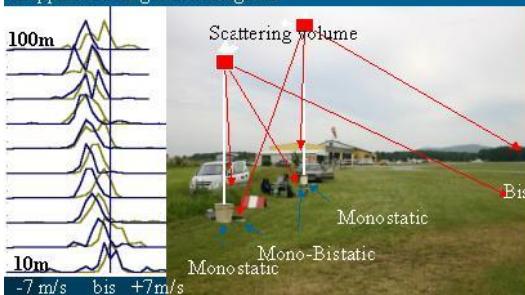
Institut für Meteorologie (BOKU-Met)

Grenzschichtmeteorologie und kleinräumige Klimatologie

- Bodennahe Atmosphäre und ihre raum-zeitliche Struktur
- Strömungs- und Transportprozesse in komplexem Gelände
- Instrumentenentwicklung – Mini-SODAR
- Modellberechnungen zum Energie- und Stofftransporttransport
- Klimäkologie

Akustische Vertikalsondierung

Mono-Bistatic Vergleich
Doppler-Radialgeschwindigkeit



Atmosphärische Strahlung

Monitoring of total ozone and spectral UV radiation at the Sonnblick Observatory (3106 m, Austria)

Brewer and Bentham spectroradiometer DM150



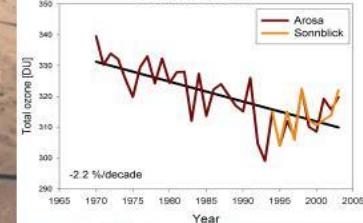
CCD-cloud monitoring system

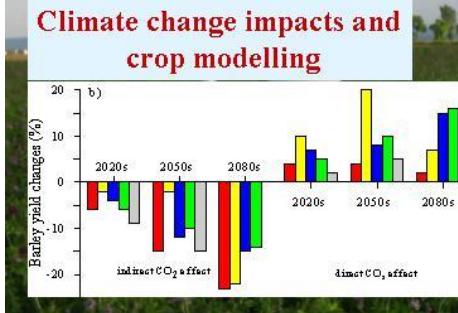
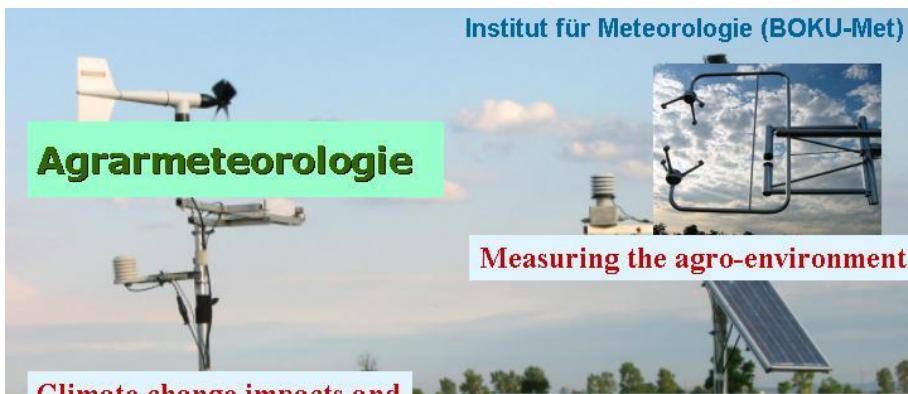


Institut für Meteorologie (BOKU-Met)



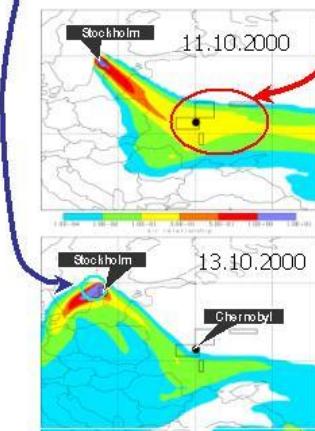
TOTAL OZONE





Unterschiedliche Herkunft von Cs-137 in der Luft in Stockholm:

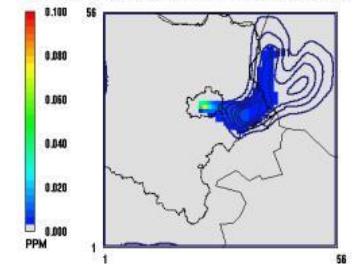
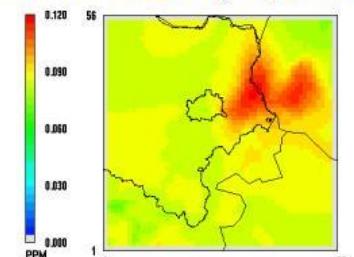
- a) Weitere Umgebung von Chernobyl
- b) kontaminiertes Wald in Schweden



Berechnung mit FLEXPART

Institut für Meteorologie (BOKU-Met)

U m
w e l t -
M e t e o r o
l o g i e



Berechnung mit MM5/CAMx



Habitat requirements



Habitat requirements:

- continuum
- gravel grading

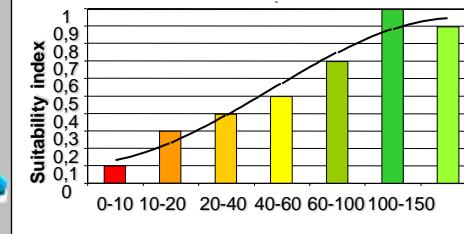
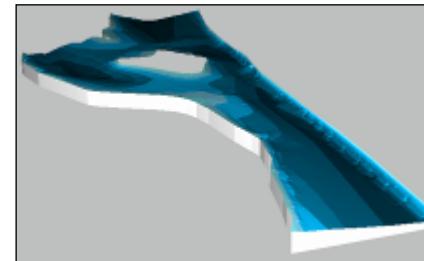
Habitat requirements:

- gravel interstitial
- gravel bars
- heterogenous banks
- benthic invertebrates

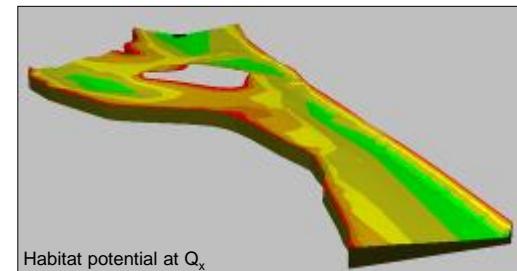


Habitat availability Q_x

Habitat modelling



Output of model



Habitat requirements:

- gravel bars
- heterogenous banks
- fish fry



WasserCluster Lunz mit Zuordnung von Personal



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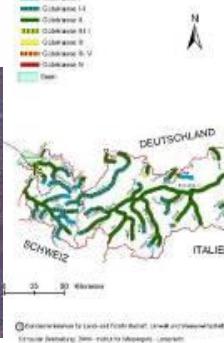


Biologisches Gütebild der Fließgewässer Österreichs 2001

Herausgegeben vom Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft

Legende:

- Fließgewässer I
- Fließgewässer II
- Fließgewässer III
- Fließgewässer IV
- Fließgewässer V
- Fließgewässer VI
- See





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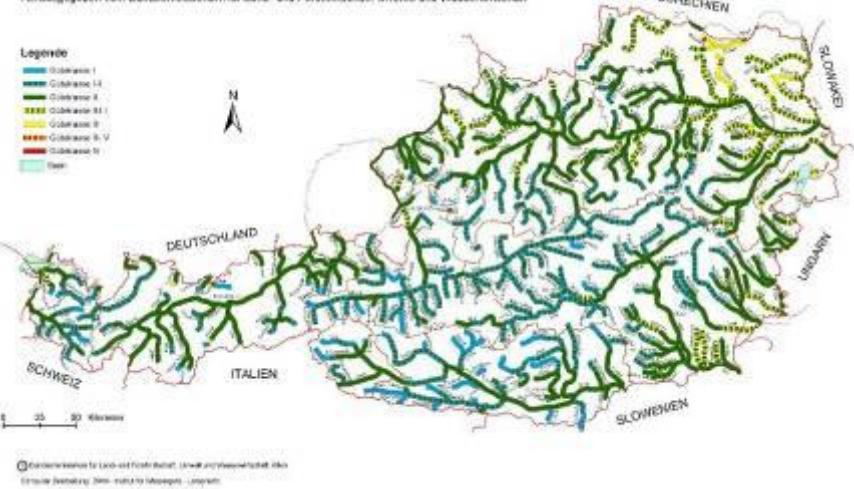


Biologisches Gütebild der Fließgewässer Österreichs 2001

Herausgegeben vom Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft

Legende

- Gütekasse I
- Gütekasse II
- Gütekasse III
- Gütekasse III+II
- Gütekasse IV
- Gütekasse V
- Gütekasse VI
- Gütekasse VII
- Gütekasse VIII
- Gütekasse IX
- Gütekasse X
- Gütekasse XI

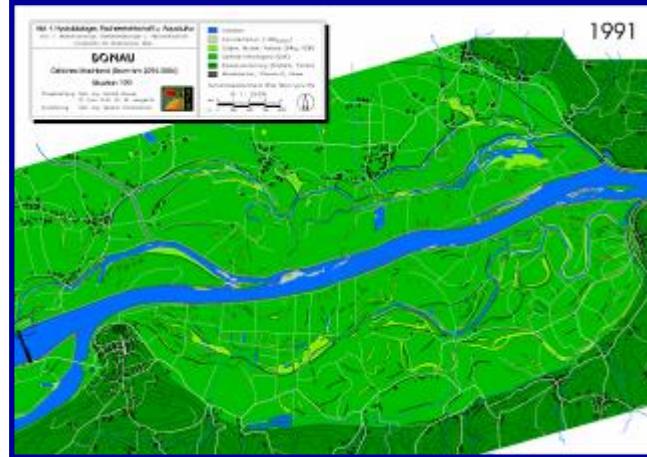
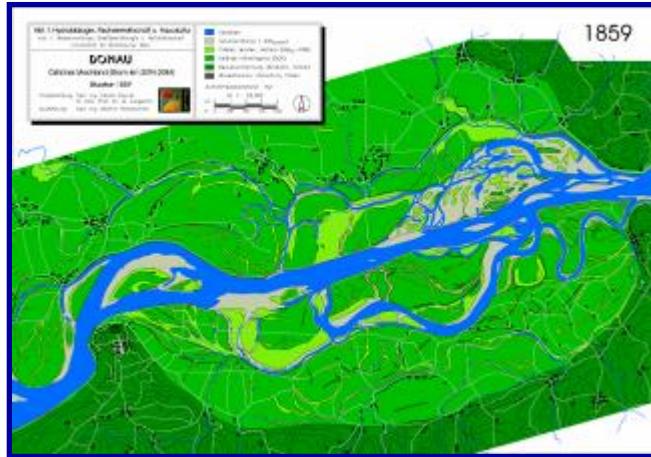


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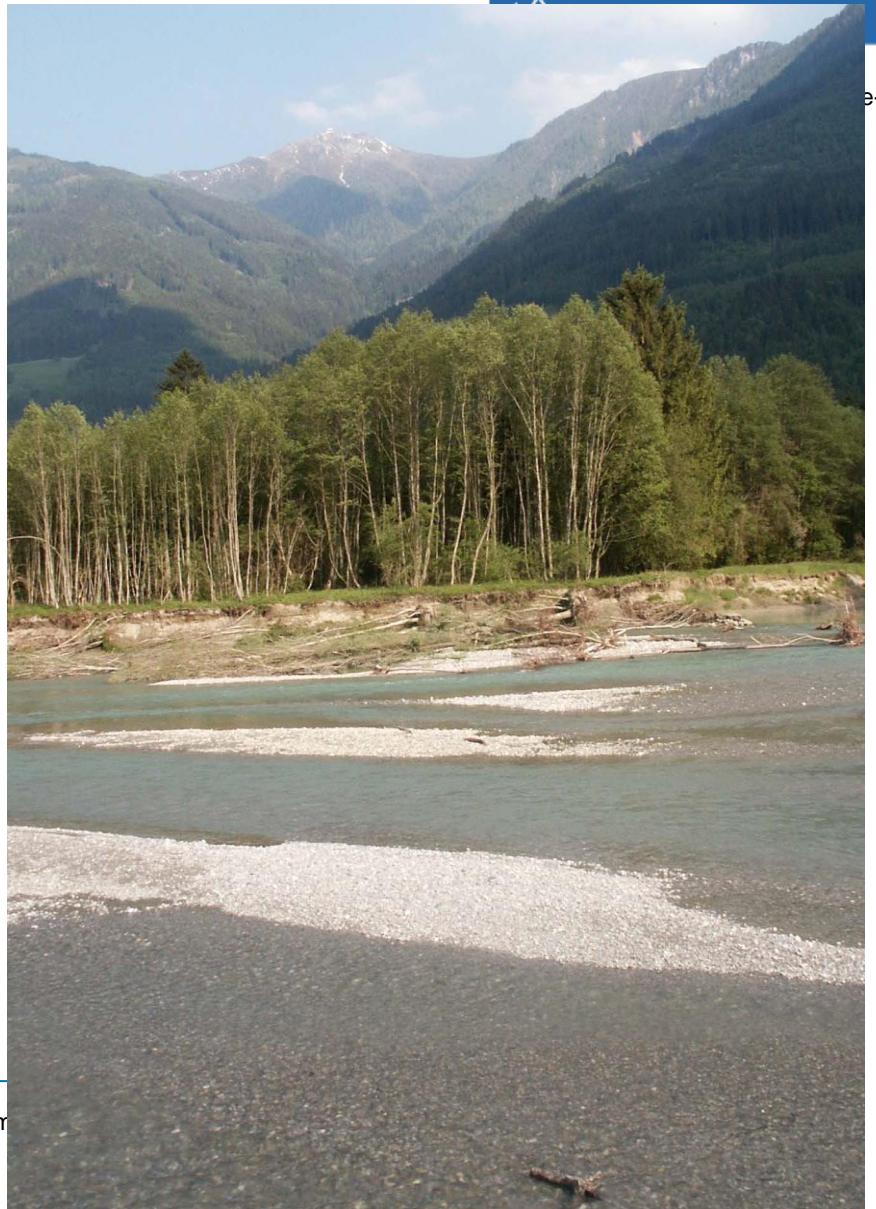




Connectivity / dynamics



Measure Kleblach



LIFE-Projekt Obere Drau



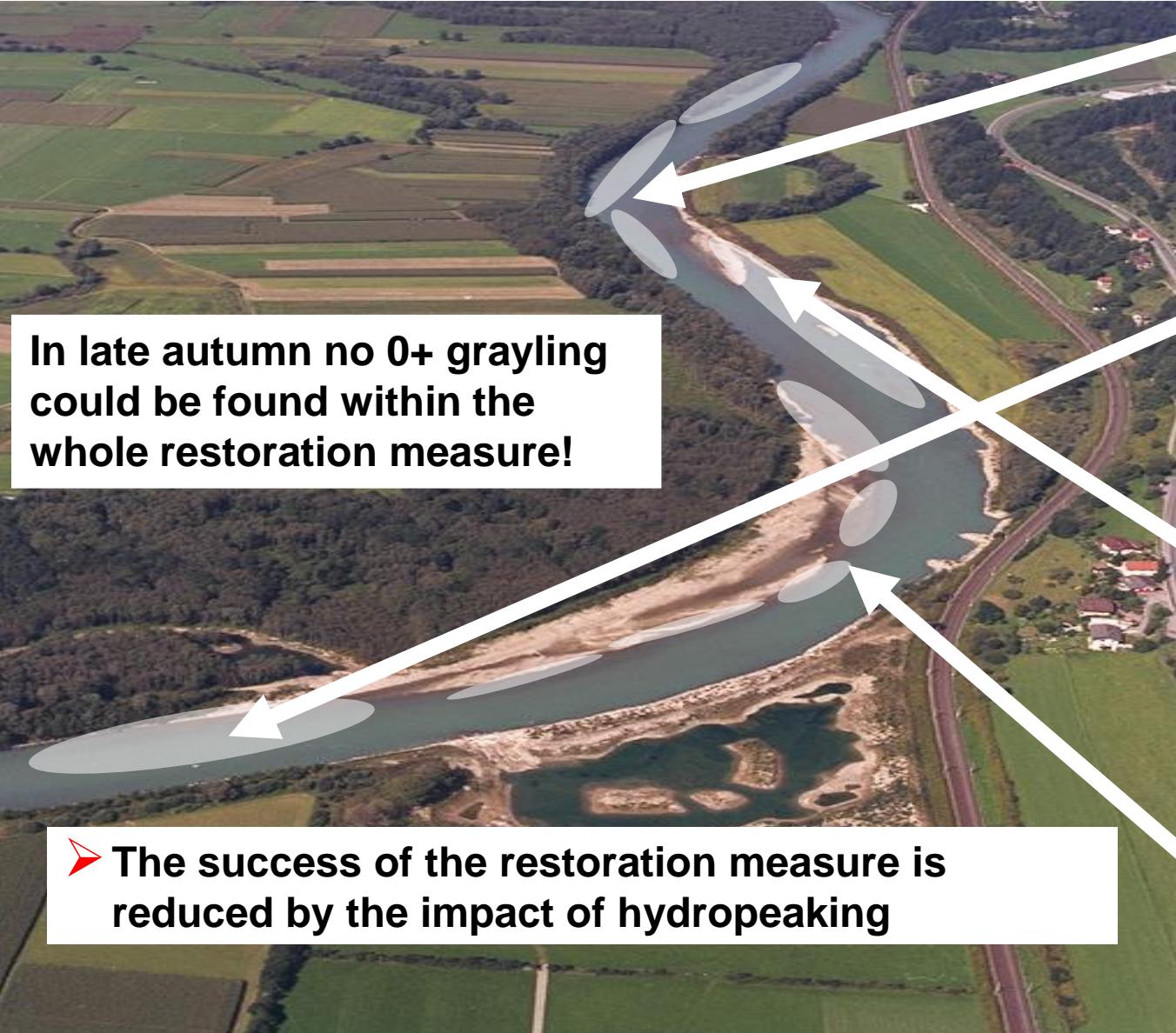
02 Berg i. Drautal



Aufweitung Spittal/Drau

r Wien
osphäre-

Conclusions



<http://www.assess-hkh.at>

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Laufzeit: 15.04.2005 - 14.04.2008

**FP6 - Managing humid and semi-humid ecosystems, STREP
INCO-CT-2005-003659**

10 Partner aus 8 Staaten

**Bangladesh, Bhutan, Indien, Nepal, Pakistan,
Österreich, Deutschland, Tschechien
plus 1 internationale Organisation**

wissenschaftlicher Koordinator: Univ. Prof. Dr.O. Moog



Integrating BOMOSA cage fish farming system in reservoirs, ponds and temporary water bodies in Eastern Africa



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Universität für Bodenkultur Wien
Moi University
Austrian Academy of Sciences
University of Bologna
Enki public benefit cooperation
Kenyan Ministry of Livestock and Fisheries Development
Kenya Marine and Fisheries Research Institute
Egerton University
Ethiopian Institute of Agricultural Research
Department of Fisheries Resources Uganda