

Contents - Inhaltsverzeichnis - Indice

Foreword - Vorwort- Prefazione

Soil-Bioengineering: Ecological Restoration with Native Plant and Seed Material	1
Ingenieurbilogie - Begrünung mit standortgerechtem	
Saat- und Pflanzgut, eine Einführung in das Thema	2
Ingegneria Naturalistica -Ripristino della vegetazione	
con sementi e materiali vegetali idonei al sito	3
E. HACKER und B. KRAUTZER	

Plenary Session - Plenarsitzung - Sessione Plenaria

Was ist standortgerecht? Beispiele von Maßnahmen an Fließgewässern und Hochlagenbegrünungen	
What is site-specific? Examples of measures on riverbanks and eroded areas above the treeline (Summary)	
Cosa si intende per idoneo al sito? (Riassunto)	5
F. FLORINETH	

Was ist standortgerecht? Theorie und Praxis der Arbeit mit standortgerechtem Saat- und Pflanzgut	
What is site-specific? Theory and practice in the work with native plant and seed material (Summary)	
Cosa si intende per idoneo al sito? Teoria e prassi dell'intervento	
con sementi e materiali vegetali vivi idonei al sito (Riassunto)	11
H. WITTMANN und T. RÜCKER	

Extremstandorte in Mitteleuropa - Flach- und Hügelländer	
Extreme sites in Central Europe - countries with flat and hilly regions (Summary)	
Siti estremi in Europa Centrale - paesi con pianure e regioni collinari (Riassunto)	31
M. STOLLE	

Extreme sites and their restoration requirements in Arctic-Alpine climatic regions	
Extreme Standorte und deren Anforderungen an die	
Begrünung im arktisch-alpinen Klimagebiet (Summary)	
Siti estremi e le esigenze da soddisfare per il loro	
inerbimento nelle regioni a clima artico-alpino (Riassunto)	37
G. PERATONER	

Casistica di interventi sperimentali di ingegneria naturalistica in regioni mediterranee Italiane	
A survey of experimental soil bioengineering works in Italian Mediterranean regions (Summary)	43
F. PALMERI, G. SAULI e P. CORNELINI	
Renaturierungsziele und Zielgesellschaften naturnaher Begrünungen	
von Rohböden in gemäßigten Klimaten Mitteleuropas	
Restoration targets and target plant communities on raw	
soils in temperate climates of Central Europe (Summary)	
Obiettivi dell'inerbimento (Riassunto)	53
S. TISCHEW	

Restoration of severely disturbed alpine and arctic vegetation	
in Norway using native species - an integrated approach	
Rekultivierung schwer gestörter alpinen und arktischer Vegetation	

mit einheimischen Arten in Norwegen (Zusammenfassung)	
E strategie riproduttive e di sopravvivenza delle specie dei siti estremi (Riassunto)	63
D. HAGEN	
Session 1	
Methods for site-specific restoration - an introduction to Session 1	
Methoden für standortgerechte Begrünungen, eine Einführung (Zusammenfassung)	
Metodi per il ripristino vegetazionale idoneo al sito - introduzione alla Sessione 1 (Riassunto)	71
E. HACKER	
Methoden zur Etablierung von Saaten bei der Hochlagenbegrünung	
Methods for Establishing Seeding in High-Zone Restoration (Summary)	75
W. GRAISS und B. KRAUTZER	
Verwendung von Grünlandböden	
Use of grassland soils (Summary)	81
F. MOLDER	
Naturnahe Renaturierung von Rohböden mit gebiets-eigenem Material: samenreiches Mahdgut und Oberboden	
Near-natural restoration of raw soil with material of local origin: seed-rich plant clipping material and overburden (Summary)	85
A. KIRMER	
“Heudrusch” - seeds produced by threshing hay: the method and the suitability of the product for vegetation-restoration	
Entwicklung von Heudrusch und Einsatz bei Begrünungen (Zusammenfassung)	93
K. BÖHMER	
Förderung der Verbreitung von Zwergsträuchern in alpinen Einzugsgebieten	
Promotion of the distribution of dwarf shrubs in alpine catchment areas (Summary)	97
R. SCHAFFER, G. MARKART, B. KOHL und H. PIRKL	
Standortgerechte Gehölzsaaten	
Site-specific tree and shrub seeding (Summary)	101
L. OBERNOLTE	
Session 2	
Restoration with Site-Specific Seed Mixtures. From Theory to Practical Realisation	
Begrünung mit standortgerechten Saatgutmischungen.	
Von der Theorie zur praktischen Umsetzung (Zusammenfassung)	
Inerbimento con miscugli di sementi idonei al sito.	
Dalla teoria alla realizzazione pratica (Riassunto)	107
B. KRAUTZER and W. GRAISS	
Production and use of site specific seed in Austria	
Produktion und Einsatz von standortgerechtem Saatgut in Österreich (Zusammenfassung)	113
C. TAMEGGER and B. KRAUTZER	
Standortgerechtes Saatgut und angepasste Saattechnik - ein Blick in die Schweiz	
Native Seed and adapted seeding technique - a look at Switzerland (Summary)	119
M. STREIT	
Regiosaat- und Pflanzgut, ein Herkunftsstandard in Deutschland	123
M. WIEDEN	

Die Ausschreibungspraxis für Wildsaatgut in Deutschland	127
E. RIEGER	
 Session 3	
La teoria e la prassi nell'utilizzo del materiale idoneo al sito	
Theory and practice of working with native plant materials (Summary)	
Theorie und Praxis der Arbeit mit standortgerechtem Pflanzenmaterial (Zusammenfassung)	131
P. SANGALLI	
 Produktion und Einsatz von Containerpflanzen für standortgerechte Begrünungen im Hochgebirge	
Production and use of container plants for site-specific restoration in alpine regions (Summary)	135
W. GALLMETZER	
 Begrünungstechniken unter Verwendung der Vegetation vor Ort -	
Methoden im Spannungsfeld zwischen Ökologie und Ökonomie	
Restoration techniques with the use of native vegetation -	
choice of methods in respect of ecology and economy (Summary)	141
T. RÜCKER und H. WITTMANN	
 Anzucht und Vermarktung von gebietsheimischen Gehölzen	147
J. REIS	
 Session 4	
Der Einsatz von Hilfsstoffen in der standortgerechten Begrünung	
The use of auxiliary materials for ecological restoration (Summary)	
L'impiego di materiali ausiliari nell'inerbimento idoneo al sito (Riassunto)	149
E. STALLJANN	
 Use and importance of mycorrhiza in site-specific restoration	
F. GRAF, M. FREI, M. SCHWARZ and A. BÖLL	155
 The use of auxiliary materials for the road embankments restoration and landscape construction	
Impiego di materiali ausiliari per l'inerbimento di scarpate nella costruzione	
di strade e nella sistemazione del paesaggio (Riassunto)	161
E. DIANA, G. PERATONER, S. VENERUS	
 Pfähle aus Holz und Stahl. Ingenieurbiologie - Sicherungsbauweisen - Pfähle	
Soil - Bioengineering - Erosion control - piles (Summary)	167
R. JOHANNSEN und F. SPUNDFLASCH	
 Session 5	
Prospects and Challenges for the Future	
Zukunftsansichten und künftige Herausforderungen (Zusammenfassung)	171
B. KRAUTZER and E. HACKER	
 Ecological restoration with native species in Iceland	175
A.L. ARADOTTIR and M.H. JOHANSSON	
 Introduction of soil-bioengineering methods in Sweden. Experiences from two test sites.	181
K. RANKKA, M. ÄNÄS and K. ROLF	
 Disparaged, disturbed or degraded nature or cultural landscape?	191
T. ISRAELSEN	
 Revegetation with Native Species in the French Pyrenees Mountains	197
S. MALAVAL	

Working with site specific seeds and vegetation in Czech Republic and Slovakia, experiences and prospects	201
M. ŠEVČÍKOVÁ, P. ŠRÁMEK, I. JONGEPIEROVÁ and M. ZIMKOVÁ	
Establishing vegetation for slope stabilisation in Hellas	207
J. CHRONOPOULOS and A.T. PARASKEVOPOULOU GIBBINS	
Experiences and perspectives of restoration with site-specific seeds and plant materials	213
J.P. FERNANDES	
Esperienze e prospettive di recupero ambientale con specie erbacee in Italia Experiences and perspectives of restoration with herbaceous species in Italy (Summary)	219
C. PORQUEDDU and S. MALTONI	

Poster

Recultivation of rocky slopes	227
B. BEIKIRCHER, S. MAYR and F. FLORINETH	
What is „site specific vegetation“?	228
A. BLASCHKA, B. KRAUTZER and W. GRAISS	
Comparison of three revegetation methods on a dike of the river Rhine (sod transplantation, Heudrusch™-sowing, commercial Seed), regarding biodiversity, ecological value and erosion control	230
S. BLOEMER, S. EGELING and U. SCHMITZ	
Development of a Procedure for the Evaluation of the Cost-benefit Ratio of Nature Conservation and Landscape Management Measures	232
M. CONRAD, J. KÖPPEL and S. TISCHEW	
Comparison of different restoration techniques and seed mixtures in the revegetation of two ski-runs in NE Italy	233
E. DIANA, G. PERATONER and M. DAINESI	
Revegetation of road embankments after infrastructural interventions: comparison of hydroseeding techniques and seed mixtures in a trial in NE Italy	234
E. DIANA, G. PERATONER and M. DAINESI	
Heudrusch® - Die Engelhardt Methode	235
J. ENGELHARDT	
Phytoremediation of nitroaromatic compounds in soils by plants	237
S. FALLAHI, M.H. REZAEI, O. RANAEI, M. KHAYAMI and R. HAIDARI	
Untersuchung verschiedener Ansaatmethoden mit Heublumen oder Hochlagen-Handelssaatgutmischungen am Gernkogel im Pinzgau/Salzburg Monitoring of various seeding methods with hay flowers and high altitude commercial seed mixtures in the Pinzgau valley/Salzburg (Abstract)	238
F. FLORINETH	
Seed harvesting of Mediterranean herbaceous native species for land rehabilitation interventions	240
A. FRANCA, L. SULAS and F. SANNA	
Construction and Monitorization of Bioengineering Techniques in Monsanto Forest Park, Lisbon	241
A. FREITAS, A. RIBEIRO, P. MARTINHO and P. SILVA	
Alpine Sod Rolls for Restoration in High Altitudes	242
H. GOTTSCHLICH, B. KRAUTZER and E. PÖTSCH	

Seed propagation of site specific species in Austria	244
W. GRAISS, B. KRAUTZER and A. BLASCHKA	
Protection and re-establishment of vegetation after road construction with endemic vegetation in South Africa began 35 years ago. Sicherung und Begrünung von Straßenböschungen mit standortgerechter Vegetation in Südafrika schon vor 35 Jahren! (Zusammenfassung)	246
E. HACKER, L. KOEPEL and G. MATTHAEI	
Steckbriefe zur Regionalisierung ingenieurbilogischer Arbeiten - dargestellt am Beispiel der Provinz Navarra/Spain	248
E. HACKER und A. WERPUP	
Entwicklung von standortgerechten Gehölzsaaten nach 30 Jahren an einem Beispiel aus Süddeutschland	251
E. HACKER und I. WREDE	
Sustainable rehabilitation and restoration of the road embankment near Otrokovice (South East Moravia)	253
J. KAŠPAROVÁ, B. CAGAŠ and R. MACHÁČ	
Long-term success of assisted site recovery in mining sites	254
A. KIRMER and S. TISCHEW	
Ski run re-vegetation at high altitudes: Seed mixtures influence the soil seed bank!	255
B. KLUG	
Natural revegetation from topsoil along the new main road to the Lofoten islands, Norway	257
E. KONGSBAKK	
Site-specific seed mixtures for restoration at high altitudes	259
B. KRAUTZER, W. GRAISS and A. BLASCHKA	
Restoration and planting on the closed mining areas of Pécs	261
V. LAKATOS	
Establishment of pioneer woodlands via seeding	262
A. LORENZ	
Restoration of specie-rich grassland and heath at Baden Airpark	263
W. MAIER and B. HASPER	
Hydro-seeding with herbaceous species for road-cut slope stabilization in Egnatia highway, Greece	265
K. MANTZANAS, P. PLATIS, I. ISPIKODIS, A. IOVI and V.P. PAPANASTASIS	
Bioengineering for Streambank Stabilization. Application to Algibre River	267
J. MATOS SILVA, S. PINTO REDOL, E. FLEBBE and L. GOMEZ	
Evaluierung von Gründüngungsmischungen im Weinbau	268
M. MEHOFFER, K. HANAK, B. SCHMUCKENSCHLAGER und F. REGNER	
Keimprüfung von inhomogenen Diasporengemischen	270
F. MOLDER	
Restoration of an abandoned marble quarry with pre-alpine native grasses	271
R. PAOLETTI, G.B. RIGONI STERN, C. LOCATELLI, P. ACETO and G. FINCATI	
Sperimentazioni di talee di specie autoctone in Nicaragua	272
A. PETRONE e F. PRETI	
Introduction of soil bioengineering methods in Sweden. Experiences from two test sites	274
K. RANKKA, M. ÄNÄS and K. ROLF	

Native plant restoration North of the Polar Circle	275
K. RAPP, G. RØTHE, C. UHLIG and I. SCHJELDERUP	
Meadow as source of seed for the restoration of natural vegetation	276
M. SCOTTON and F. SANCIN	
SEMENSCI: a seed production project of plant species and populations indigenous to high-altitude Valtellina region	277
A. TOSCA, A. FRAU, M. ROMANI, R. PAOLETTI, L. PECETTI, E. PIANO, F. GUSMEROLI and G.P. DELLA MARIANNA	
Indigenous seed reproduction for site restoration and ecological compensation	279
A. TOSCA, P. BASSETTI and A. FRAU	
Improvement of soil erosion control mats by using “native organic matter” from early succession plant species	280
C. UHLIG	
Utilization of different grass mixtures in restoration of road embankment slopes	282
B. VALIHORA, M. ZIMKOVÁ, J. CUNDERLÍK, M. KIZEKOVÁ and L. HANZES	
Slope grassing to control erosion in mountain regions of Slovakia	283
B. VALIHORA, M. ZIMKOVÁ, J. CUNDERLÍK, M. KIZEKOVÁ and L. HANZES	
Restoration Approach of High Mountain Slopes in the North of Spain. Case: CA-183 road Reinos- Brañavieja. (Tramo)Strech: La Lomba - Brañavieja	284
A. VALLE ALVAREZ, E. CASTILLO LOPEZ, M. DEL JÉSUS, L. LÁZARO GIL, V. FERNÁNDEZ GARCÍA, J. RUIZ OSÉS, J. FERNÁNDEZ ROJO and E. SOTO DÍAZ	
Environmental integration of high altitude roads. The slope restoration project of “La Lomba - Brañavieja” road	286
A. VALLE ALVAREZ, E. CASTILLO LOPEZ, M. DEL JESUS CLEMENTE, L. LÁZARO, A. DE LA PUENTE GARCÍA, V. FERNÁNDEZ GARCÍA, J. FERNÁNDEZ ROJO, J. RUIZ OSÉS and E. SOTO DÍAZ	
Restoration or primary succession? - Soda waste disposal case study	287
E. ZAJAC and J. ZARZYCKI	
Bodeneigenschaften von Sportplätzen	288
I. ZAMOTAEV	
Index of Authors -Liste der Autoren - Indice degli autori	289