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Combining Field, Laboratory, and Three-Dimensional Numerical Modeling Approaches to Improve Our Understanding of Fish Habitat ReConnectivity and Variability: Metrics for Riverine Floodplain Backwater Rehabilitation; Quantitatively Evaluating Restoration Scenarios for Rivers With Recreational Flow Releases; Section V: Sediment Transport Issues; Sediment Source Fingerprinting (Tracing) and Sediment Budgets as Tools in Targeting River and Watershed Restoration Programs; Closing the Gap Between Watershed Modeling, Sediment Budgeting, and Stream Restoration
Mitigating Channel Incision via Sediment Input and Self-Initiated Riverbank Erosion at the Mur River, AustriaSalmon as Biogeomorphic Agents in Gravel Bed Rivers: The Effect of Fish on Sediment Mobility and Spawning Habitat; Section VI: Structural Approaches; Restoring Habitat Hydraulics With Constructed Riffles; Pool-Riffle Design Based on Geomorphological Principles for Naturalizing Straight Channels; Controlling Debris at Bridges; Seeing the Forest and the Trees: Wood in Stream Restoration in the Colorado Front Range, United States Geomorphic, Engineering, and Ecological Considerations When Using Wood in River RestorationSection VII: Model Applications; Development and Application of a Deterministic Bank Stability and Toe Erosion Model for Stream Restoration; Bank Vegetation, Bank Strength, and Application of the University of British Columbia Regime Model to Stream Restoration; Practical Considerations for Modeling Sediment Transport Dynamics in Rivers; AGU Category Index; Index

Sommario/riassunto

Published by the American Geophysical Union as part of the Geophysical Monograph Series, Volume 194.Stream Restoration in Dynamic Fluvial Systems: Scientific Approaches, Analyses, and Tools brings together leading contributors in stream restoration science to provide comprehensive consideration of process-based approaches, tools, and applications of techniques useful for the implementation of sustainable restoration strategies. Stream restoration is a catchall term for modifications to streams and adjacent riparian zones undertaken to improve geomorphic and/or ecologic funct