

SIL Working Group on the Conservation and Management of Running Waters: Meeting in Montreal, August 13th, 2007 – A Report

The group convened a meeting in Montreal on August 13th 2007 in conjunction with the SIL Congress. The meeting was attended by 15 members of the Working Group representing USA, Australia, Japan, Sweden, Germany, Portugal, Slovenia, UK, Iceland, Denmark. Gísli M. Gíslason chaired the meeting in the absence of the Working Group chairman, Phil Boon.

The business session discussed how the Working Group could function in between the triennial SIL congresses but no new suggestions were made. This was followed by a technical discussion on the theme of stream restoration, and Bent Lauge Madsen talked on 'Stream restoration: a science, an art, or just skill?'. In the discussion that followed the group agreed that:

- a knowledge of geomorphology is an essential scientific prerequisite for practical restoration work. If the project is to succeed, however, this must be coupled with a thorough knowledge of the habitat requirements of the organisms likely to benefit from stream restoration.
- stream restoration projects are unlikely to succeed without the support of a broad cross-section of society. The presentation of such projects to a wide audience, and a partnership approach to their implementation, are critical factors in the success of stream restoration work.
- defining a target, or objective, at the beginning of the project is fundamental for a rigorous evaluation of the results.

The group agreed that, ideally, restoration should reinstate 'natural' conditions reflecting an absence of human impact. In practice, this is a utopian aspiration as many changes are irreversible. For example, in Denmark draining meadows alongside regulated lowland streams has changed the soil conditions from anaerobic to aerobic and in only a few decades has lowered the meadow surface by more than 1 m. Re-establishing the original meanders in the regulated stream can change the stream-meadow system to a swamp or even to a long lake. This has occurred in some of the Danish 'wet meadow' projects, where the aim has been to reduce nitrate loss from agricultural land by denitrification in the re-established anaerobic soil.

Yet, is this activity 'restoration' in the true sense of the word? A better term is 'rehabilitation' where the objective is to re-establish natural ecological and geomorphological functioning, and thereby create an 'acceptable' stream environment rather than an unattainable pristine system that has long since disappeared.

The Working Group agreed to submit a paper on this topic for publication in the SIL Proceedings, focusing on the following aspects:

- Restoration from a long-term catchment perspective
- Political aspects of stream restoration

- Determining the habitat requirements of target organisms
- Stream restoration – the big picture

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