

Econnect International Workshop Grenoble

Summary of breakout-groups

In the course of the [International ECONNECT Workshop at Grenoble](#), three [break-out discussion groups](#) were put in place to allow a better exchange and discussion between the workshop participants in the following topics: "[Aquatic Corridors](#)"; "[Terrestrial Corridors](#)" and "[Participative Approaches](#)".

[Group 1: Aquatic Corridors, coordinated by Leopold Füreder](#)

Within this workshop six central questions concerning aquatic corridors being effective in riverine landscapes were discussed:

1) *How to identify barriers that are effective in the longitudinal, lateral, vertical and temporal dimensions of a river system?* It was agreed that the 4-dimensional model is ideal to properly understand the structural and functional elements of riverine systems. Other aspects proposed for consideration were effects from chemical barriers, temperature dynamics within climate change or sediment clogging.

2) *How to identify those habitats and species that are typical for riverine systems?* It is difficult to define and identify typical riverine habitats (especially aquatic microhabitats) from maps or assessments as most categories used in such assessments appear to be too general. Thus, more detailed definitions are needed to fulfill the physical, spatial and functional aspects. The ecological continua of riverine systems can be represented as Blue- and Green Veins of aquatic and terrestrial habitats, which serve as corridors for the "flow" of species and species groups. Furthermore it seems more useful to group species into functional guilds, than trying to identify typical species.

3) & 6) *How is the data availability in the Alps and in other mountain ranges? How can the communication with watershed managers and governmental authorities be facilitated?* According to the water frame directive (WFD) and its implementation, data from all EU states should be available by now. However there are delays for finalizing equivalent data collections in France, Italy and Switzerland. The data availability for species and habitats required for Natura 2000 sites were considered good. Furthermore it is possible to achieve data from museum and similar institutions. A better transfer and exchange of knowledge has to be established through simultaneous communication at regional, national and EU level. It was considered important to install an interchangeability unit taking a central role in the collection, harmonization and distribution of data.

4) *How can the best practice for analysis and modeling methods be found?* Various methods for the analysis/definition of spatial and temporal pattern and processes in aquatic systems and barriers being effective were discussed. Problems with the

availability of relevant data and informations were defined. Functional indicators (guilds, biological/ecological traits) were considered being most useful.

5) *How can the potential to increase connectivity and decrease barrier effects and fragmentation be analyzed?* The Isère valley was considered to be an example of good practice for the re-establishment of connectivity through ecological measures (see examples from the excursions). An important proposition, for the re-establishment of ecological connectivity is a broad acceptance by the public and all stakeholders. The all-level engagement of stakeholders shows to be of crucial importance. All planned measures will be futile, if one chain link of the involved stakeholders, e.g. ministry - regional administration - land owners, does not support the implementation process. Thus, it is important to do a lot of ecological education and public working. Furthermore it is important to show that the work is not finished by only implementing single measures, but that habitats need a more heterogeneous structure for their ecological functioning. There is a strong need for implementing ecological measures at an Alps wide scale, because of the local character of measures realized until now.

[Group 2: Terrestrial Corridors, coordinated by Sandra Luque](#)

The terrestrial-corridor's workshop served as platform for presenting the state-of-the-art methodology in ecological connectivity research. The aims of this breakout-group target the following subjects open to discussion: i) Different modelling approaches: objectives, data, resolution & scale issues ii) Identify key differences in between connectedness (continuum approach) and connectivity iii) How to set the right thresholds values that have ecological meaning from the populations point of view. A great deal of discussion was centred on the fact that connectivity is species specific therefore functional connectivity needs to be considered (i.e. ecological flows, spatial processes, species dispersal, gene flow, etc). In order to achieve a common methodological consensus, issues regarding different modeling approaches were presented during the breakout-group e.g. impact of graph construction on results of landscape connectivity assessments and use of cost-models versus Euclidean-models in functional connectivity. Furthermore, data management issues (like availability, quality, harmonization, scaling and species specific data) and different relevant analysis tools were presented (CONEFOR SENSINODE, PatchMatrix, Corridor Designer, Circuitscape, GUIDOS). The discussion concerned issues like knowledge gaps of climate change in ecological connectivity and value (monetary or none) of services. Furthermore the relation of ecological processes (function) to spatial pattern (structure) and the role of connectivity for ecological flows (importance for landscape function and for spread of pests, neozoa and epidemics) were discussed.

Analyzing ecological processes through spatial pattern is a complex task at multilevel scale (local, regional, continental) with widely different fields of interests

and issues. To successfully analyze such systems it is necessary to separate the workflow into three steps: i) the selection and preparation of the data by an expert; ii) processing through analysis of image (map) components (MSPA); iii) interpretation by another expert. The aim is to achieve a toolbox for a generic description of spatial pattern.

Several points were discussed for integrating connectivity into the landscape planning: I) it is useful to think of the landscape as a spatial network composed of habitat units interconnected by links among the different habitat patch units. II) It has to be considered that the landscape elements can perform different roles. Furthermore connectivity in a patch (intrapatch) and between patches (intrapatch; habitat availability) have to be considered. III) Connectivity has to be placed in the broader context of planning and conservation alternatives. IV) If the data availability is scarce it is better to rely on adaptable approaches than to use more complex models. V) Consider testing and using recent tools for integrating connectivity in landscape planning and ecological network planning.

[Group 3: Participative Approach, coordinated by Aurelia Ullrich](#)

In complex subject areas as establishing ecological networks, with many sectors, stakeholders and persons involved in a social web of expertise, new methods of decision making are needed to overcome the increasingly complex task of organizing such a multilevel-process. Participative approaches represent such a method, and have proven to be a useful tool in establishing ecological networks. This was highlighted during the workshop by the presentation of three case studies: i) the participatory approaches through steering committees in the corridor project in the Grésivaudan valley (presented by Murielle Pezet-Kuhn), ii) the stakeholder involvement in the mapping process in the Rhone-Alpes Region ecological network (presented by Laure Belmont), and iii) the stakeholder participation through information and consultation in the ECONNECT pilot region Northern Limestone Alps (presented by Lisbeth Zechner).

Ad i) the aim of the Grésivaudan valley project was to define corridors and appropriate measures for restoring them. As a first step, the situation in the Grésivaudan valley was analysed through literature reviews, field data and expert interviews (local knowledge). Then, steering committees were held to support and validate further steps, which were composed of a wide participation of stakeholders and political decision makers. The general structure was thematically organized in different working groups (waterways, agriculture, etc.), and supported by the local Urbanism Agency. The steering committees were used to define goals and a common vision, which was a holistic vision not only serving the purpose of biodiversity but also to achieve further benefits e.g. in road safety, water quality, leisure, etc.. The result was a network of potentially functional corridors. For the implementation the region joined the European project "corridors of life". It was learned that stakeholder involvement needs a lot of time, it is essential to have political support, it is important

to build up multipliers and to find convincing arguments, decisions have to be formalized and the public has to be informed.

[Ad ii\)](#) in the Rhone-Alpes region stakeholders were involved via interviews to examine the data situation, develop a common vision and investigate expected outcomes. After the cartography process these data were improved again through the local experts (“personalization” of cartography). The problems encountered were as follows: face to face interviews consume lot of time in preparation, to perform and to evaluate. A common general meeting would alleviate this and create a common understanding, whilst a test period for the method is essential to check for adoptability. Furthermore clear roles in terms of a joint design, a continuous validation and information about further proceedings are suggested to be essential.

[Ad iii\)](#) the stakeholder involvement process managed by the Gesäuse National Park was achieved through information events and interviews (information and consultation). In total 170 stakeholders from the pilot region Northern Limestone Alps were interviewed to find habitats important for ecological connectivity, to prioritize measures and to find partners. The short meetings for regional information events, the interviews gathering local opinions and knowledge and the cooperation with regional structures were found to successfully support the stakeholder involvement. Problems were encountered with the late implementation of the participatory approach, project- or meeting-weariness, refusal of the “nature conservation” concept and prejudices on projects in Austria.

Furthermore, a guideline with considerations on the successful involvement of stakeholders in ecological networks was given during the workshop (presented by Lawrence Jones-Walters, [“Making the Connection”](#)). Afterwards critical factors for the success of participative approaches were discussed in a group brainstorming (e.g. creative campaigns to increase involvement and motivation, shared vision and project “vocabulary”, clear goals, face-to-face-communication).