Monitoring of BioCultural Diversity

The use and management of biodiversity of crops, cultivars and wild gathered plant species in the Biosphere Reserve “Großes Walsertal” (Vorarlberg, Austria)

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Introduction

Biosphere Reserves are known for their rich biodiversity. In the scientific discourse about conservation of biodiversity often only the “wild” biodiversity is tackled. The Biosphere Reserve *Großes Walsertal* is known for a highly intensive link of local peoples’ culture, profession and preferences with this wild biodiversity, using gathered plant species as medicine for humans and animals, as food and drink, for religious ceremonies and for ornamental purposes. In addition, one can find in this Biosphere Reserve homegardens, small arable plots for subsistence and orchards with a high diversity of plant species.

This 3 years project wants to address the lack of knowledge about the link of biodiversity and related local knowledge in the Biosphere Reserve *Großes Walsertal* and contributes to the key direction of the Sevilla Strategy 1996, that is to “reflect more fully the human dimensions of Biosphere Reserves” (UNESCO 1995).

Objectives

The project aims

- to document the diversity of plant species gathered by local people,
- to document the diversity of traditional crops and their cultivars grown by local people,
- to encourage the intergenerational transmission of knowledge,
- to actively support various local initiatives in the Biosphere Reserve.

Figures: Gathering *Thymus serphyllum* (left); School-workshop in St.Gerold (right).

Figures: Gathering *Peucedanum osthrutium* (left); Participatory video with children (right).

Research design for wild gathered plant species

Objective	Method	Sample	Result
knowledge collection	Freelists Semistructured interviews	Snowball, n=36	"expert" knowledge
knowledge transmission	2 x 14 school workshops, children as interviewer with questionnaire	189 children interviewed n=506 people	“common“ knowledge & practice
knowledge documentation & dissemination	2 participatory video-workshops with children	27 children, involving local stakeholders	extract –examples transmitted through video

Knowledge transmission through participatory research & video - “School kids as Ethnobotanists”

The transmission of traditional ecological knowledge is an indicator for the value and vitality of this knowledge. This has significant implications for the continued use, and thus sustainability, of aspects of culture that contribute to biodiversity conservation (Maffi 2008).

Involving children in data collection about wild plant gathering, embedded in workshops in the seven primary schools in the valley, encouraged the intergenerational transmission of knowledge. Children’s interest in plants increased. Through children a broad public was reached. Two “herbal documentaries” filmed by children in the *Großes Walsertal* vividly demonstrate local people’s knowledge about plants, gathering and uses. The videos were shown at the cultural festival *Walserherbst* in September 2010, and can be downloaded at http://www.nas.boku.ac.at/14578.html.

Figure: Outreach of differnet methods in the research process (own illustration)

Conclusion

This investigation provides a baseline for an ongoing monitoring process of local people’s knowledge about wild gathered plant species in the *Großes Walsertal* to actively support various local initiatives and the Biosphere Management in their efforts for sustainable use of Biosphere resources.

Diploma thesis within the project

Grabowski M. (2010): Local knowledge about ethnoveterinary medicine in the Großes Walsertal/Vorarlberg focusing on plant-based homemade remedies and religious customs related to animal husbandry.

Vogl T. (in progress): Local crops and cultivars in the Biosphere Reserve Großes Walsertal.

Frank B. (in progress): The concept of Biocultural Diversity in an European comparison.

Figures: *Arnica montana, Alchemilla vulgaris agg., Malva sylvestris* (from left to right).

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