



**Cultural ecosystem  
services of the traditional  
South Bohemian landscape  
on the example  
of LAG Třeboňsko**

**Jiří Schneider  
Eliška Pechancová  
Ilona Zourková**

- **MENDELU**
- **Faculty of Regional**
- **Development and**
- **International Studies**

*Rekreace a ochrana přírody – s prostředím ruku v ruce, Křtiny, 13.-15.5.2024*

# Introduction

## ***Cultural Ecosystem Services and Their Significance for Society***

Cultural Ecosystem Services (CES) represent intangible benefits that humanity derives from ecosystems. These benefits include aesthetic contributions that can serve as inspiration, reinforcement of cultural identity, a sense of belonging to the place where people live, spiritual experiences, or recreational activities.

## ***Local Action Groups***

Local Action Groups (LAGs) act as independent networks of citizens, non-profit organizations, entrepreneurs, and public institutions dedicated to the development of rural regions, supporting the agricultural sector in accessing financial support from national and European Union funds through the LEADER method.

The main mission of LAGs is to support the quality of life and protection of the environment in rural areas, which includes effective management of grant funds.

# Method

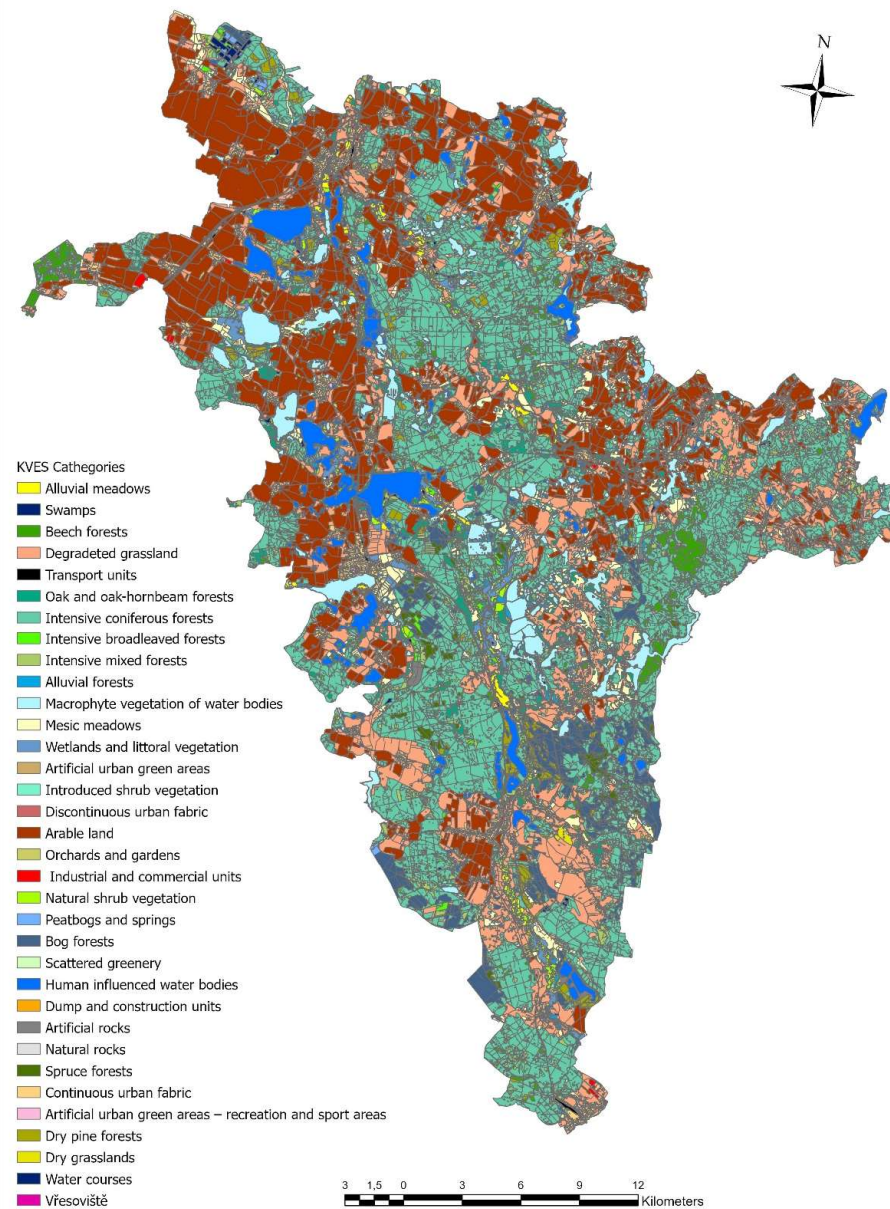
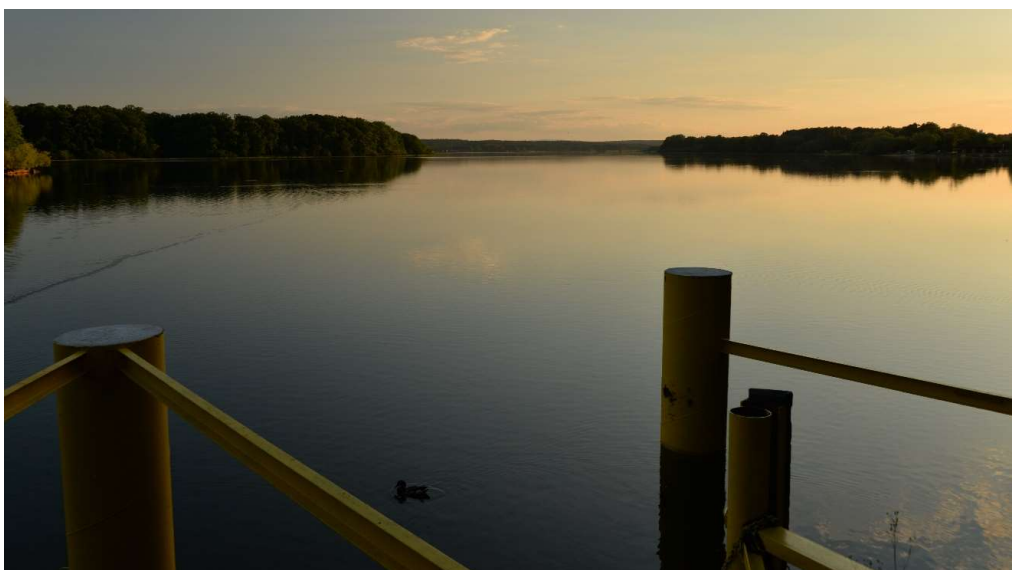
## Three steps:

- Mapping the resources of (cultural) ecosystem services
- Identification of cultural ecosystem services
- The value of the significance of the resources of cultural ecosystem services in terms of the goals of management and use



# Method

Mapping of Ecosystem services sources:  
Consolidated Ecosystem Layer  
(KVES developed by CzechGlobe)



# Method

Unification of the original CICES ecosystem service classes:

**9.1.1.1** Characteristics of ecosystems that enable **activities supporting health, recovery, or pleasure through active physical or impressive interactions**

**9.1.1.2** Characteristics of ecosystems that enable **activities supporting health, recovery, or pleasure through passive or observational interactions**

**9.1.1.3** Characteristics of ecosystems that enable **intellectual interactions, research activities, or education**

**9.1.1.4** Characteristics of ecosystems with **heritage value** - cultural, historical, traditional, regional heritage

The overall value of significance for cultural ecosystem services is calculated according to the formula:

**Cultural Ecosystem Services (CES)**

$$CES = 9.1.1.1 + 9.1.1.2 + 9.1.1.3 + 9.1.1.4$$

# Method

The assessment of cultural ecosystem services → expert estimation of the significance of ecosystem services based on their management or utilisation

The proposed scoring for the importance of individual types of ecosystems in providing, utilizing, and managing ES under current conditions in the Czech Republic is as follows:

**H** – Main ecosystem service - almost always managed (usually the main goal of management), utilized (protected by law, subject to trade, intensity of visitation) – value **4**

**V** – Secondary ecosystem service - almost always utilized (consumed, used), but not always the goal of management - value **3**

**O** – Occasional - the ecosystem has the potential for its utilization (produces function), but it is deliberately utilized rather rarely or, if frequently, in negligible scale - value **2**

**T** – Theoretical - The ecosystem has the potential for ES utilization but is not utilized as much (or was utilized in the past) - value **1**

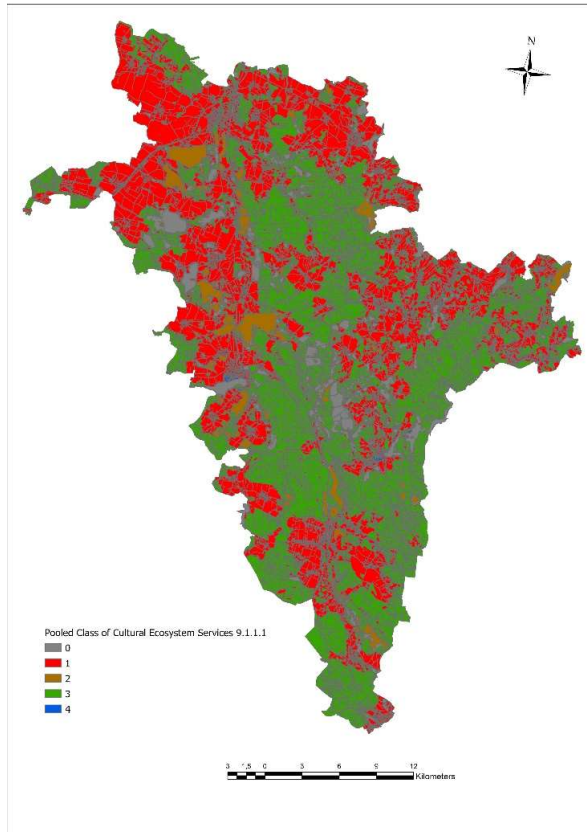
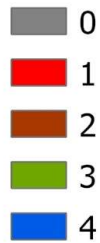
Unused or unmanaged ecosystem services - value **0**, without designation.

# Results

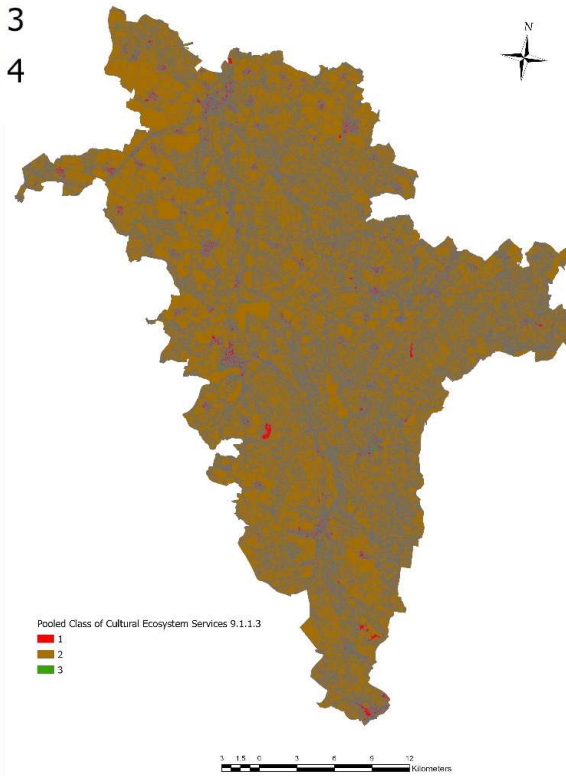
| KVES Categories   | 9.1.1.1 | 9.1.1.2 | 9.1.1.3 | 9.1.1.4 | Sum of | CES |
|---|---------|---------|---------|---------|--------|-----|
| Natural shrub vegetation                                  | 2       | 3       | 2       | 4       | 11     |     |
| Peatbogs and springs                                      | 1       | 2       | 2       | 4       | 9      |     |
| Bog forests   | 3       | 3       | 2       | 4       | 12     |     |
| Scattered greenery  | 3       | 3       | 2       | 4       | 12     |     |
| Human influenced water bodies                             | 2       | 3       | 2       | 3       | 10     |     |
| Artificial rocks  | 0       | 0       | 1       | 2       | 3      |     |
| Natural rocks   | 2       | 0       | 2       | 2       | 6      |     |
| Dump and construction units                               | 0       | 0       | 1       | 0       | 1      |     |
| Spruce forests  | 3       | 3       | 2       | 4       | 12     |     |
| Continuous urban fabric                                   | 1       | 1       | 1       | 0       | 3      |     |
| Artificial urban green areas – recreation and sport areas | 4       | 3       | 1       | 0       | 8      |     |
| Dry pine forests  | 3       | 3       | 2       | 4       | 12     |     |
| Dry grasslands  | 3       | 3       | 2       | 4       | 12     |     |
| Ravine forests  | 3       | 3       | 2       | 4       | 12     |     |
| Water courses   | 2       | 2       | 3       | 4       | 11     |     |
| Heaths  | 3       | 3       | 2       | 4       | 12     |     |

| KVES Categories   | 9.1.1.1 | 9.1.1.2 | 9.1.1.3 | 9.1.1.4 | Sum of | CES |
|---|---------|---------|---------|---------|--------|-----|
| Alluvial meadows  | 3       | 3       | 2       | 4       | 12     |     |
| Swamps  | 1       | 2       | 2       | 4       | 9      |     |
| Beech forests   | 3       | 3       | 2       | 4       | 12     |     |
| Transport units   | 0       | 0       | 1       | 0       | 1      |     |
| Oak and oakhornbeam forests                               | 3       | 3       | 2       | 4       | 12     |     |
| Intensive coniferous forests                              | 3       | 3       | 2       | 3       | 11     |     |
| Intensive broad-leaved forests                            | 3       | 3       | 2       | 3       | 11     |     |
| Intensive mixed forests                                   | 3       | 3       | 2       | 3       | 11     |     |
| Degradated grasslands                                     | 1       | 3       | 2       | 2       | 8      |     |
| Alluvial forests  | 3       | 3       | 2       | 4       | 12     |     |
| Macrophyte vegetation of water bodies                     | 0       | 1       | 2       | 4       | 7      |     |
| Artificial urban green areas – parks, gardens, cemeteries | 4       | 4       | 3       | 2       | 13     |     |
| Mesic meadows   | 3       | 3       | 2       | 4       | 12     |     |
| Wetlands and littoral vegetation                          | 0       | 2       | 2       | 4       | 8      |     |
| Introduced shrub vegetation                               | 1       | 2       | 2       | 3       | 8      |     |
| Discontinuous urban fabric                                | 2       | 2       | 3       | 1       | 8      |     |
| Arable land   | 1       | 0       | 2       | 4       | 7      |     |
| Orchards and gardens                                      | 1       | 4       | 2       | 3       | 10     |     |
| Industrial and commercial units                           | 0       | 0       | 2       | 0       | 2      |     |
| Natural shrub vegetation                                  | 2       | 3       | 2       | 4       | 11     |     |

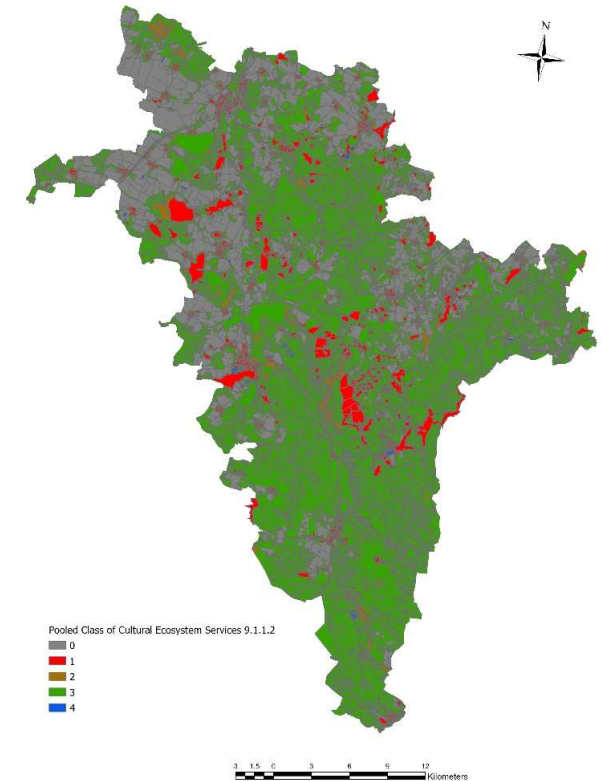
# Results



health, recovery, or pleasure  
through active physical or  
impressive interactions



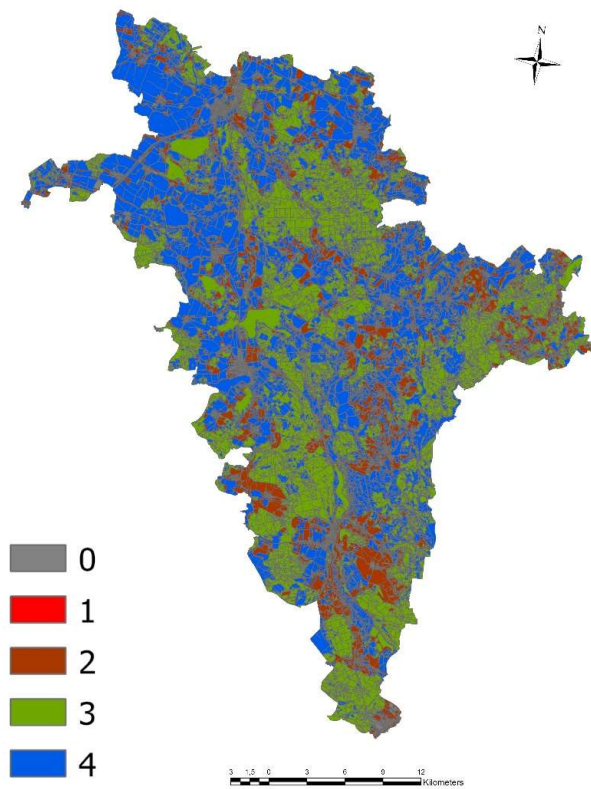
health, recovery, or  
pleasure through passive  
or observational  
interactions



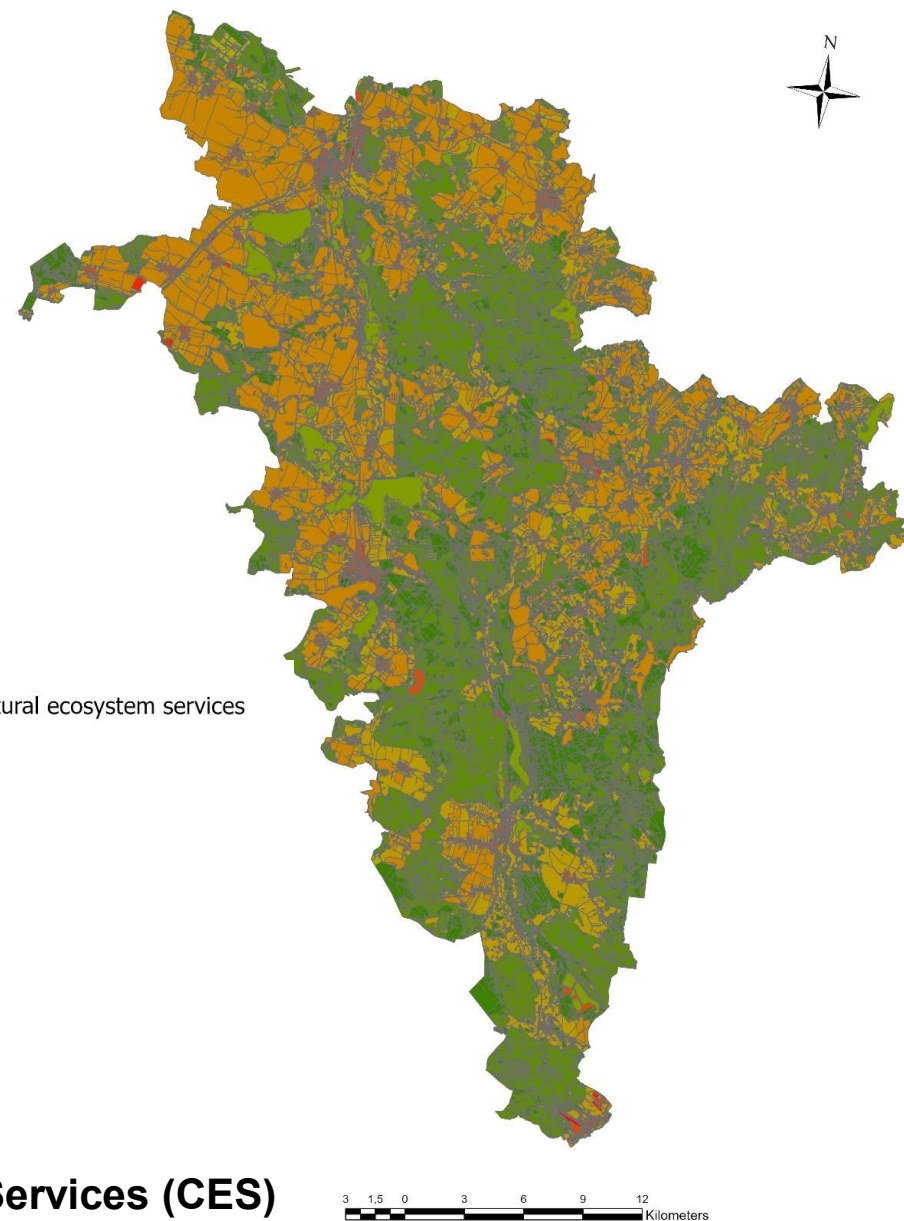
intellectual interactions,  
research activities,  
or education



# Results



**heritage value -  
cultural, historical,  
traditional, regional  
heritage**



**Cultural Ecosystem Services (CES)**

# Conclusions

- The (social) importance of the Třeboňsko LAG landscape in terms of cultural ecosystem services is above average - high
- Evaluating the importance of cultural ecosystem service resources in terms of management and use goals is only a **partial step** towards the evaluation of ecosystem services in the territory → **use within more comprehensive evaluations**
- The method represents a **general view** that **does not reflect local specifics** → it is necessary to establish a coefficient / indicator - of the current state and a coefficient / indicator of declared social importance
- The value of the significance of the resources of cultural ecosystem services in terms of the goals of management and use **needs to be further objectified and specified**

# Acknowledgement

The article was processed as an output of the project IGA FRRMS 23-011 „Perception and support of cultural ecosystem services in Local Action Groups as a tool for regional development“

The methodological approach to the evaluation of cultural ecosystem services emerged as an interim result of the project TA ČR SS05010009 „Development of effective tools for monitoring and assessment of ecological status and ecosystem services of fishponds and for an improvement of communication with stakeholders“

T A  
Č R

Tento projekt je spolufinancován se státní podporou  
Technologické agentury ČR a Ministerstva životního  
prostředí v rámci Programu Prostředí pro život.

[www.tacr.cz](http://www.tacr.cz) [www.mzp.cz](http://www.mzp.cz)

● MENDELU  
● Faculty of Regional  
● Development and  
● International Studies

# THANK YOU FOR YOUR ATTENTION



- **MENDELU**
- **Faculty of Regional**
- **Development and**
- **International Studies**