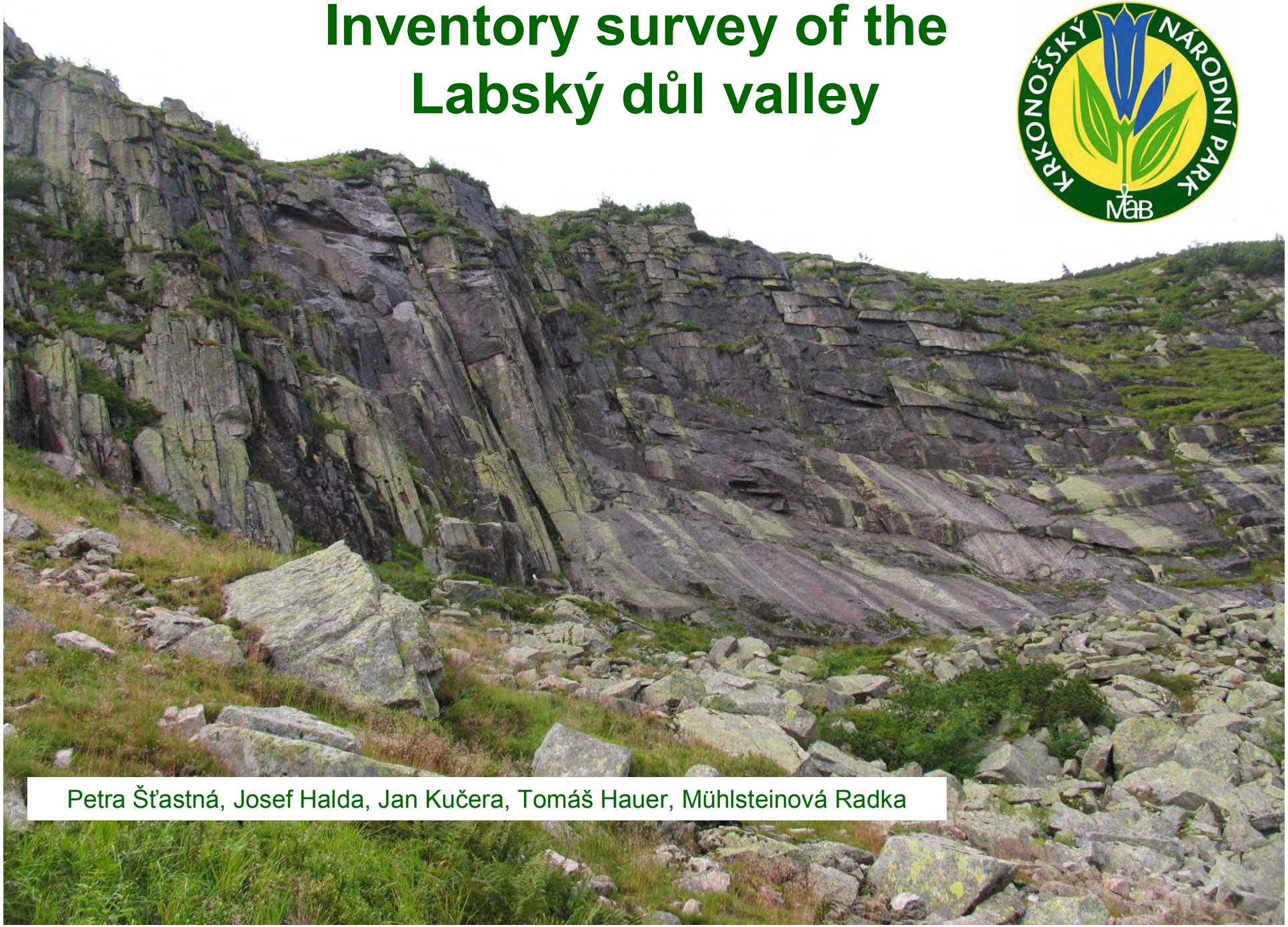
# Inventory survey of the Labský důl valley



Petra Šťastná, Josef Halda, Jan Kučera, Tomáš Hauer, Mühlsteinová Radka

# Introduction:

- **connected to previous research of rocks with ice of Labský důl valley in 2010:**

Halda J., Hauer T., Kociánová M., Mühlsteinová R., Řeháková K., Šťastná P. 2011: Biodiverzita cévnatých rostlin, lišejníků, sinic a řas na skalách s ledopády v Labském dole. Opera Corcontica č. 48, 45–67.

- **„white places“ of well known area of the Krkonoše Mts. in botanical and lichenological field (!!!)** (studium of historical literature)

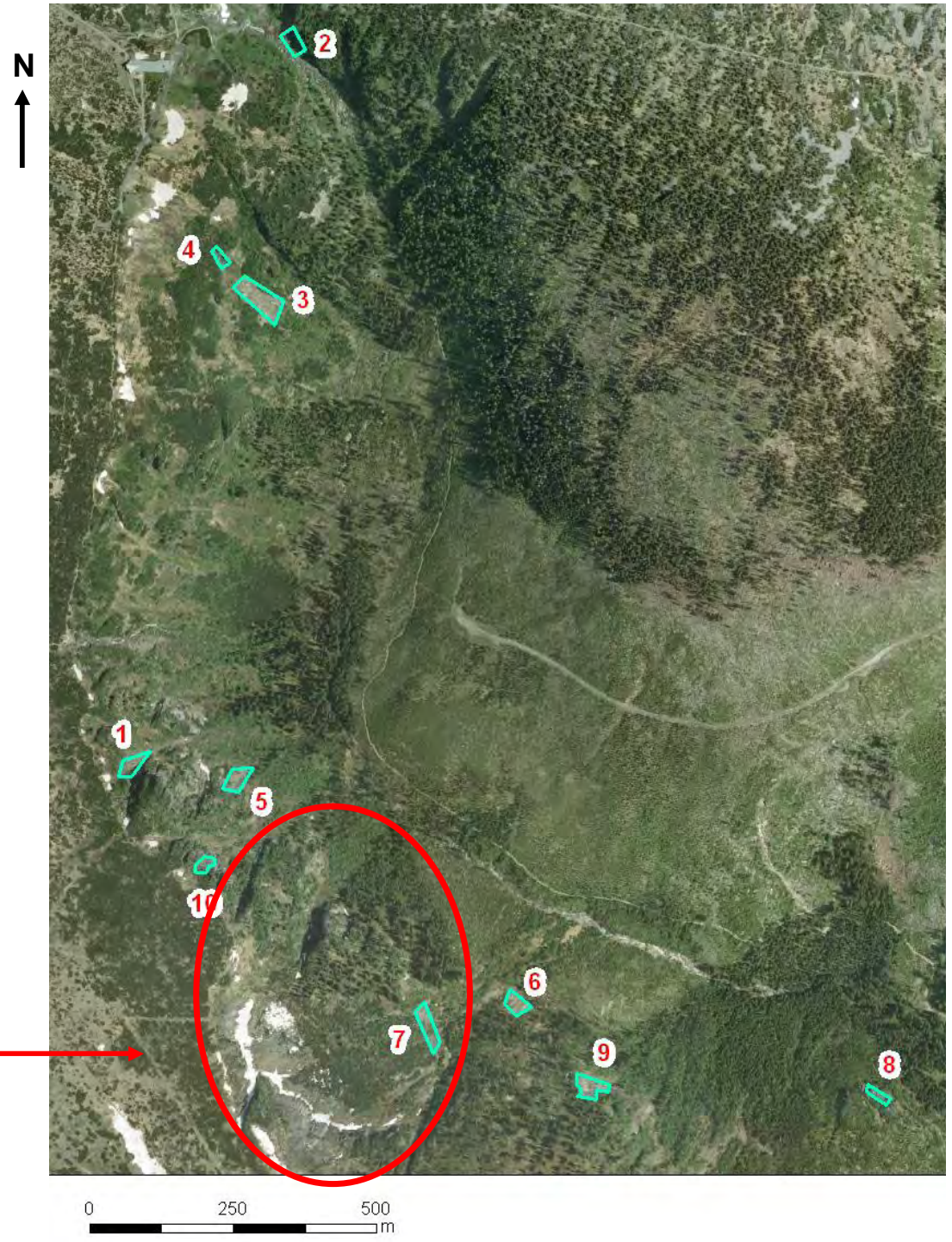
→ Why? Complicated entrance of this locality, not so interesting, no alcalic outcrops

# The main aim:

**To inventory the locality from vascular plants, bryophytes, cyanobacteria, algae and lichen fungi** (classical basic research)

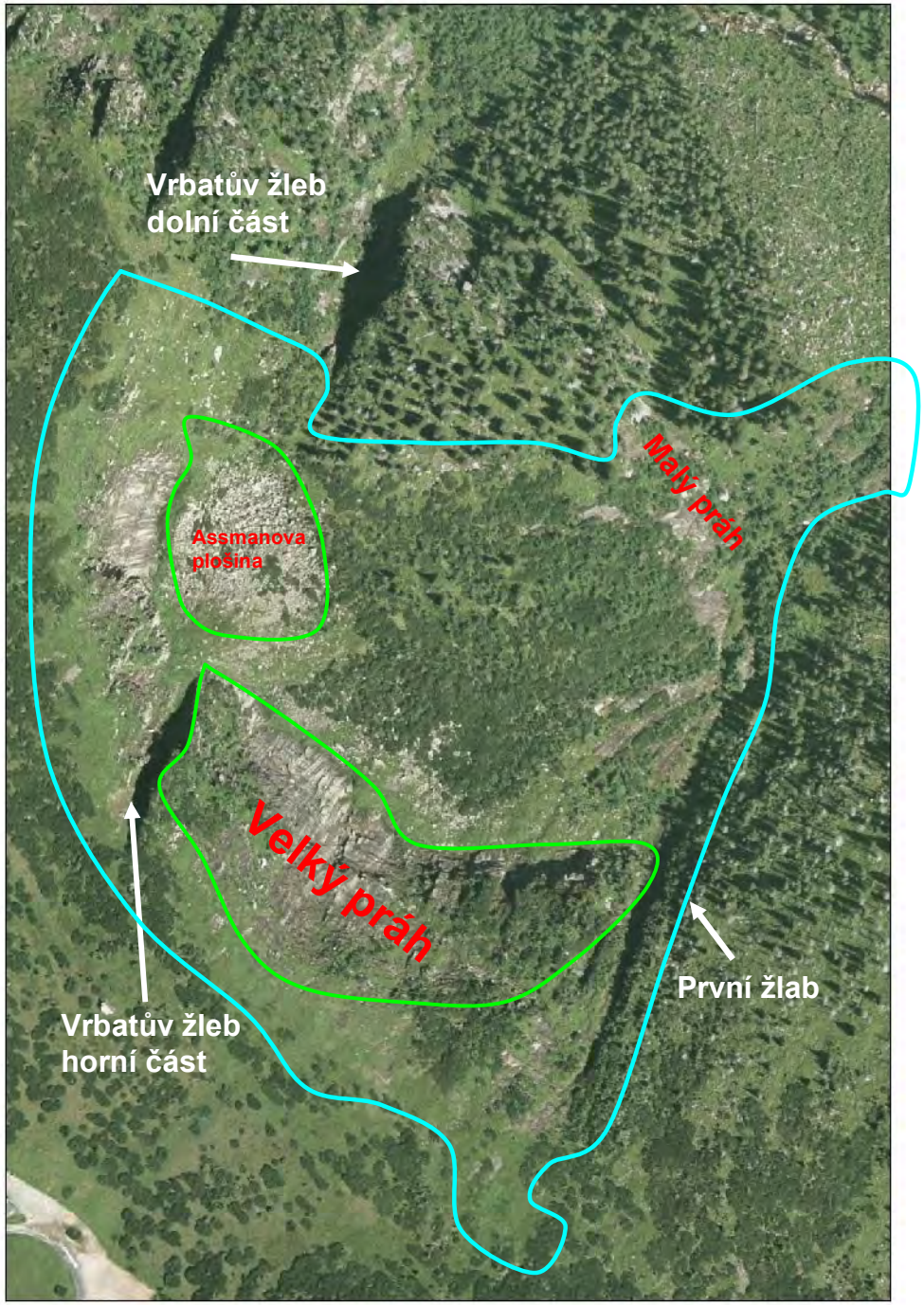
# Locality:

1000-1325 m a.s.l.




**Labský důl valley**

**Harrachova jáma cirque**


Vrbatův žleb
dolní část
Malý práh
Assmanova
plošina
Velký práh
Vrbatův žleb
horní část
První žlab

# Materials and methods

# 2011-2012:

## vascular plants:

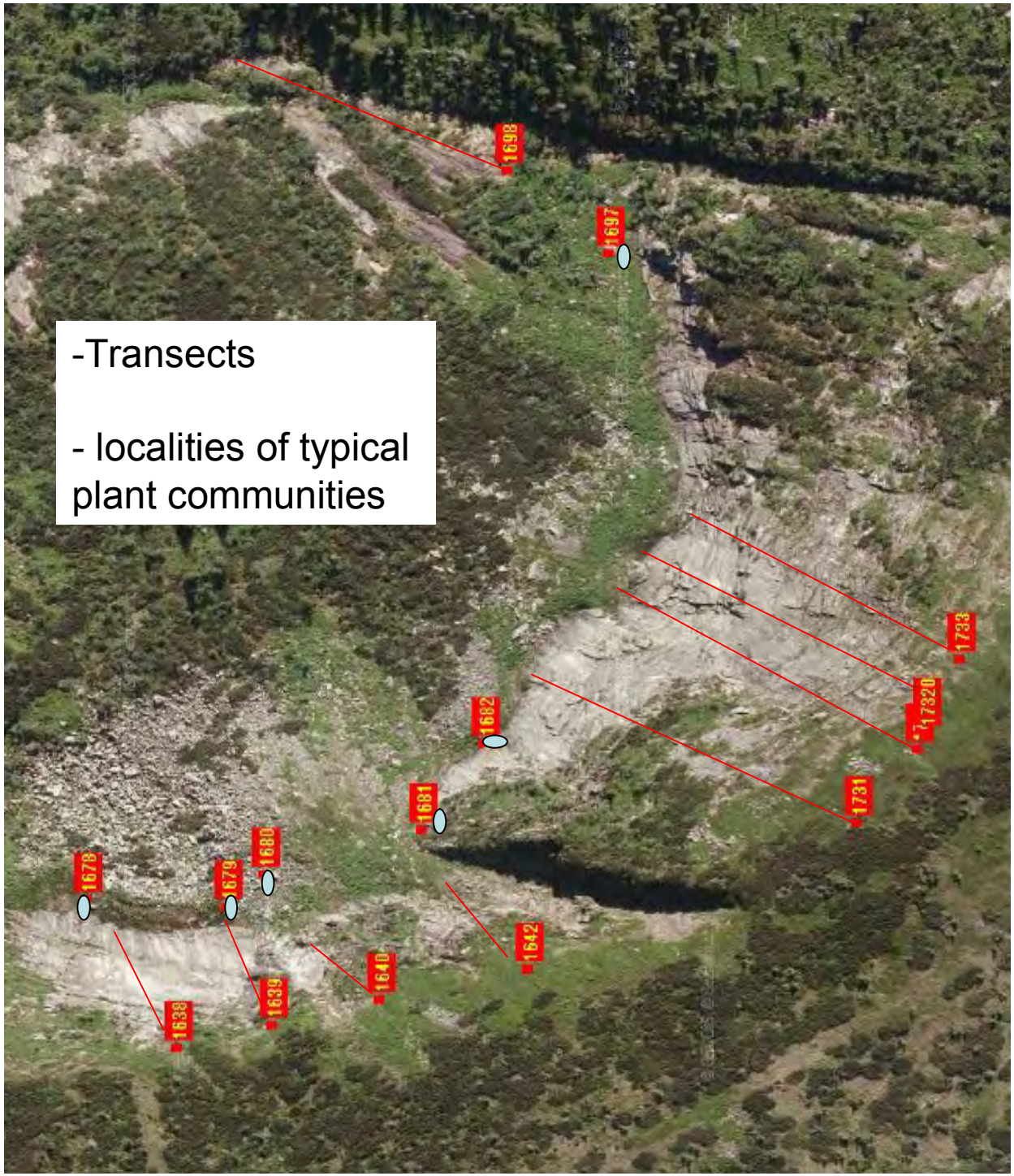
- species and the density:
3–frequent (>50%), 2–common (20–50%), 1–singular (1–20%)
- map and description of communities

## lichen fungi, bryophytes:

species and their cover area, description of biotope (moist, dry, wet etc.)

## cyanobacteria, algae:

108 samples from wet areas


-Transects
- localities of typical plant communities
1698
1697
1733
17320
1731
1682
1681
1680
1679
1678
1642
1640
1639
1638


the „lichenologists“…

# RESULTS – BOTANY

# Plant Communities

- 90% poor communities in species, typical for subalpine region and nutrient poor and acid surface (granite) – mosaic of biotopes

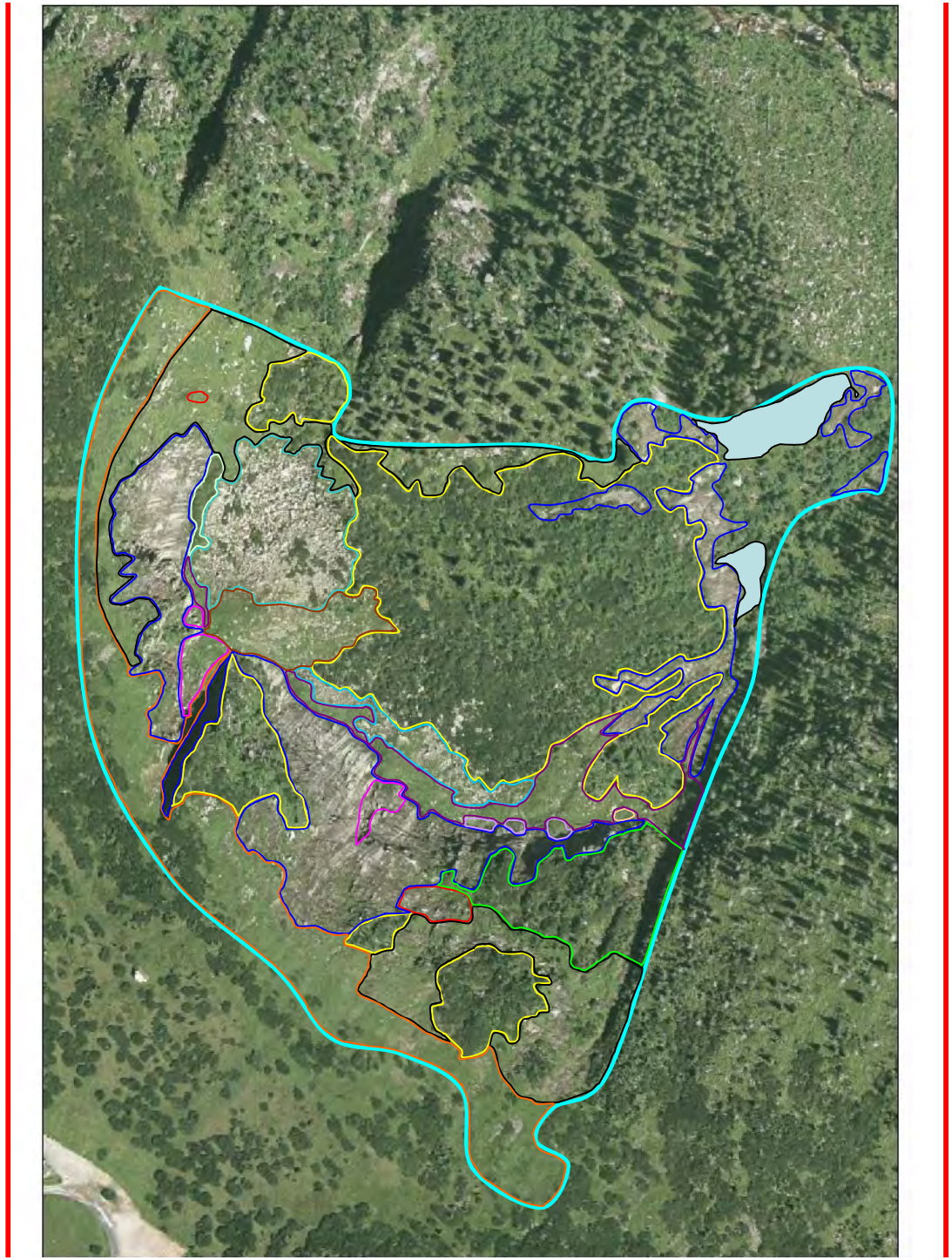
*Interesting localities:*

1) several small places (wet) rich of species under rock with higher amount of felcpar or aplit rocks, tectonic disturbances (spring areas, Vrbatův žlab Canyon)

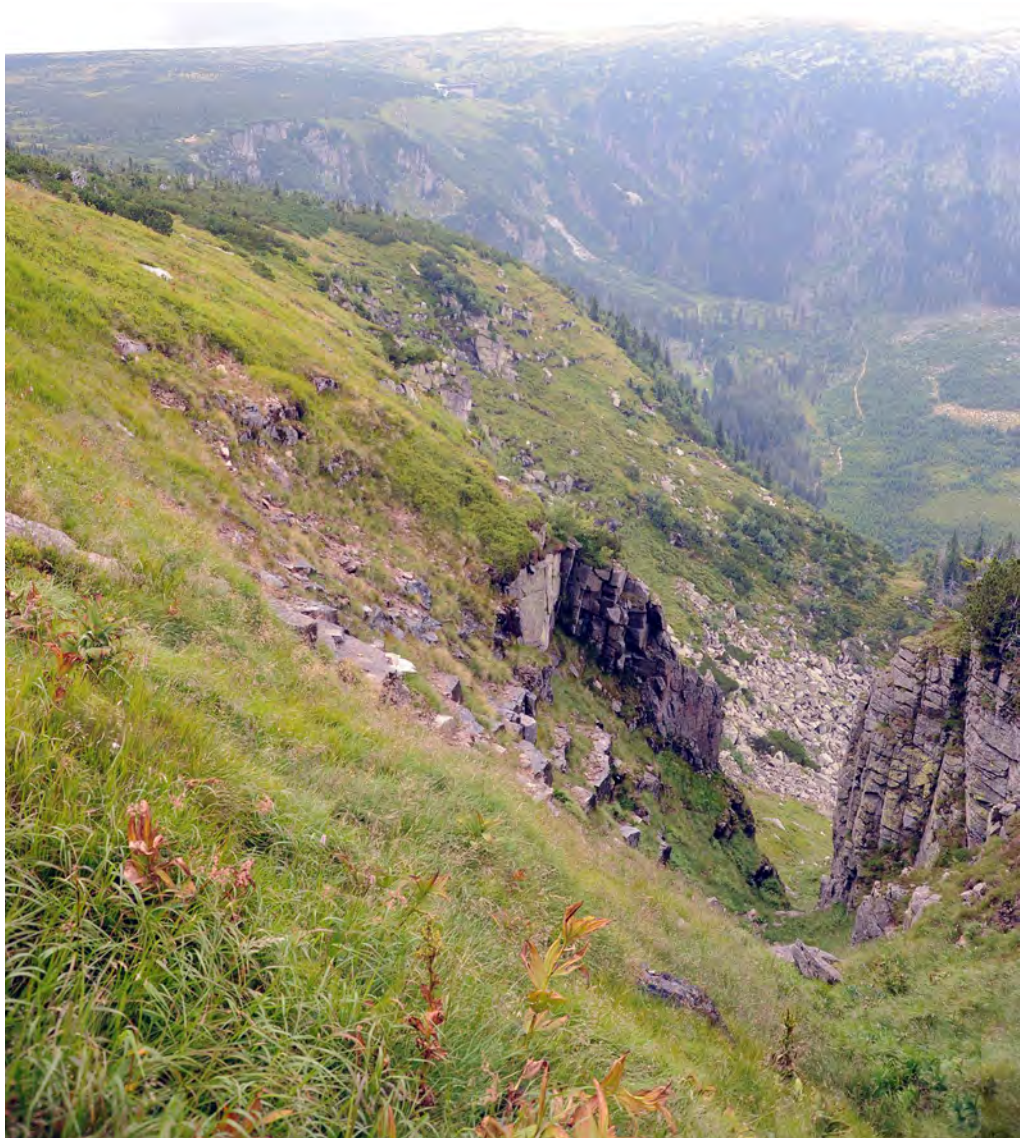
2) on wet rocks

## Spring time

*Vrbatův žleb Canyon*



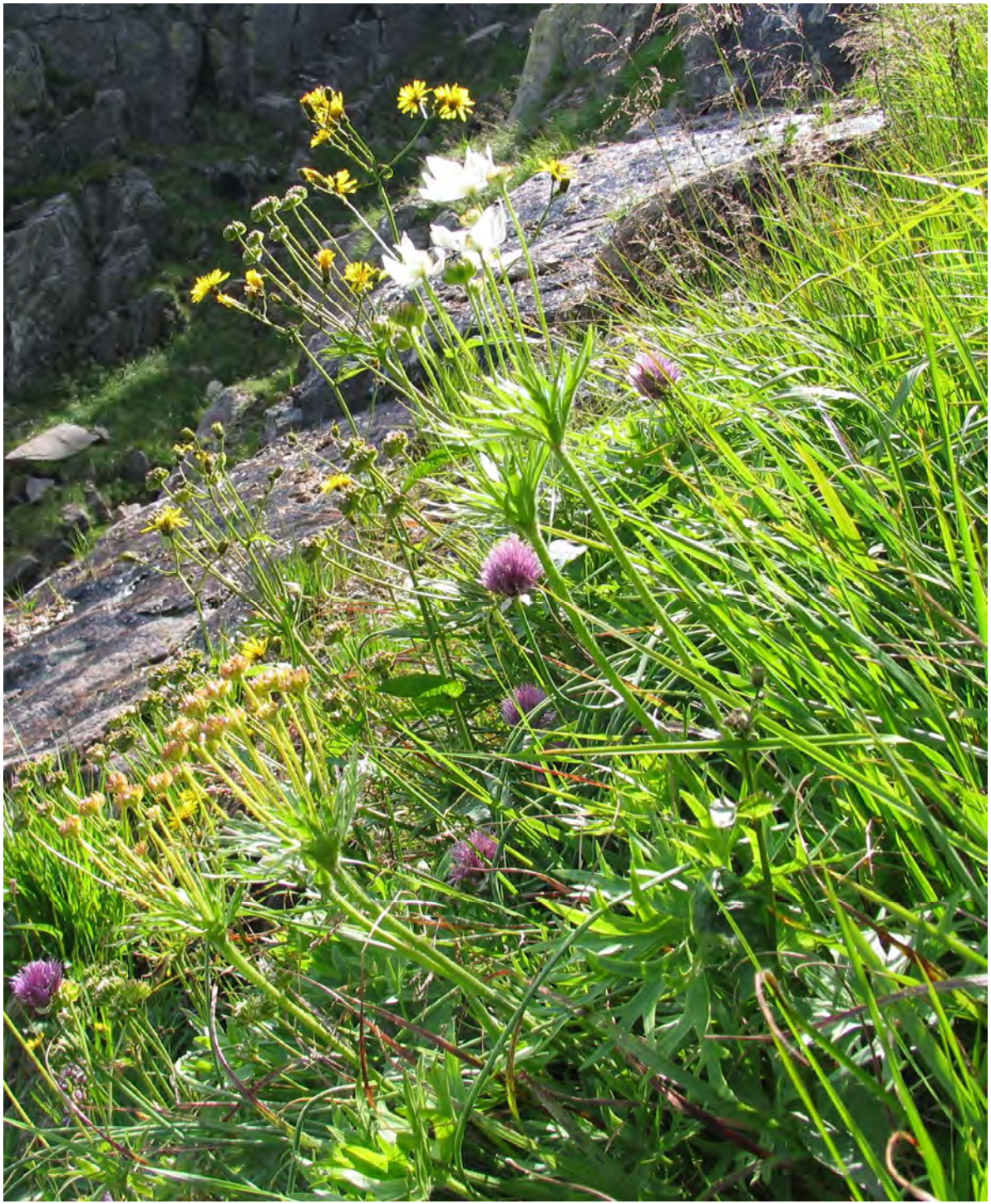
# Vrbatův žlab Canyon



*Carex capilaris*

*Galium boreale*

*Anemone narcisiflora*



# Plant Species

102 species in total

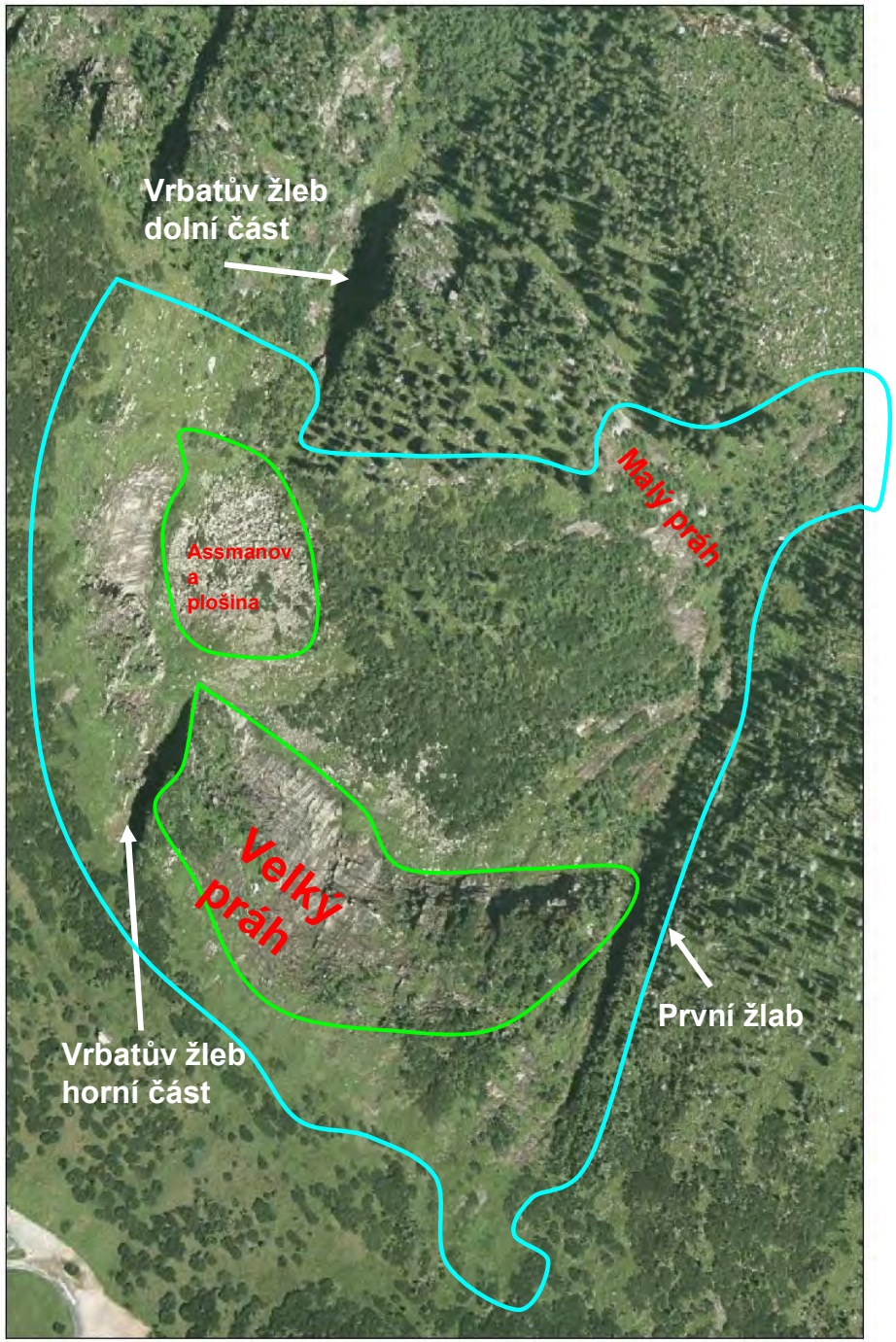
***Carex vaginata*** 3 places, (hundreds)

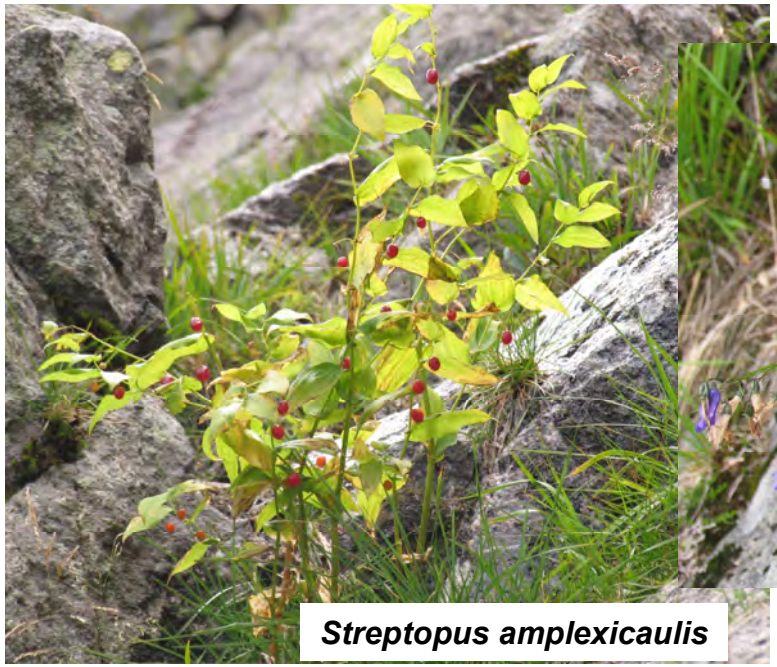
***Poa laxa* -** tens of places (hundreds)


*Padus racemosa*
1 place (cca 10)

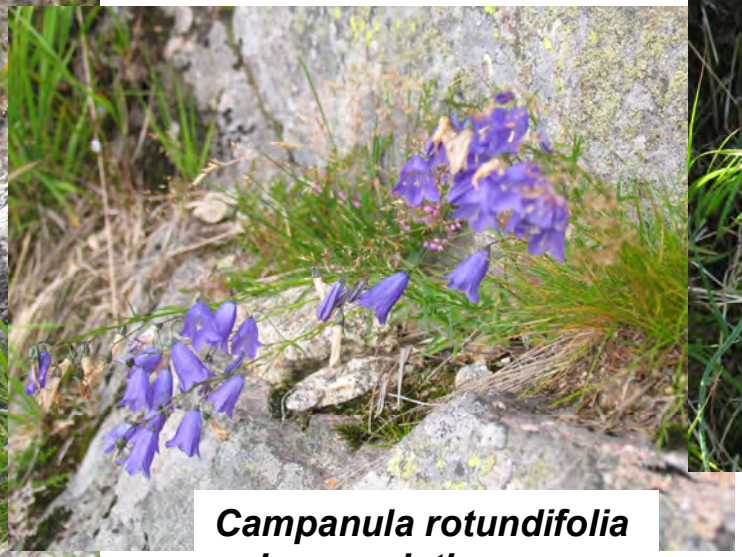

*Trichophorum alpinum*
15 places (hunderts)

*Drosera rotundifolia*
20 places (hunderts)





*Streptopus amplexicaulis*



*Campanula rotundifolia subsp. sudetica*

*Allium sibericum*

*Hupersia selago*

*Primula minima*

*Swertia perennis*

*Gentiana asclepiadea*

*Oreographum rhizocarpum*

# RESULTS – LICHEN FUNGI

90 lichen species in total

- plus 1 species of rare lichenocolic fungi *Cecidonia xenophana*
- 45 species are vulnerable and rare
- *Catolechia wahlenbergii* missing from 1879
- many of valuable species in high amounts → Harrachova jáma cirque = unique locality

*Ionaspis suaveolens*

- known from Úpská jáma cirque, but over 60 years was not found

*Ephebe lanata*

- springs and wet places Krkonoše, Šumava Mts.

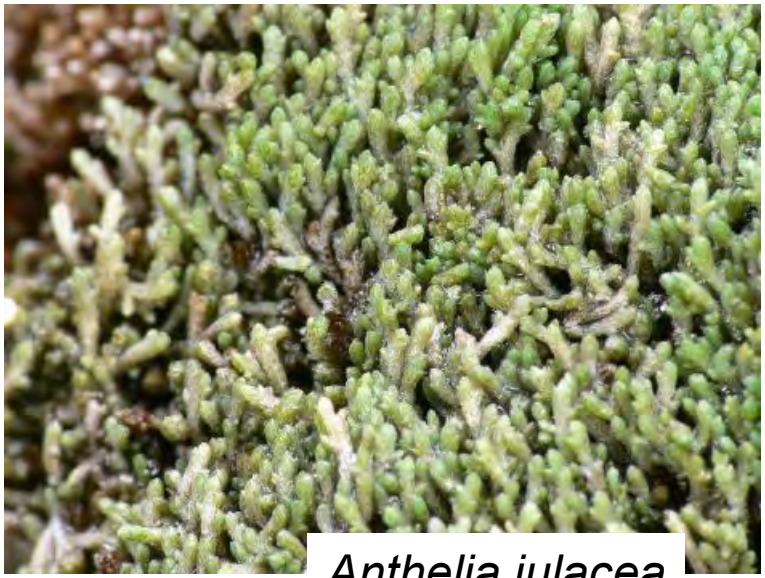
*Cecidonia xenophana*

- described 150 ago, then found In 1998, second locality in CR

# RESULTS – BRYOPHYTA

*Dicranodontium uncinatum*

*Lophozia atlantica* - missing species



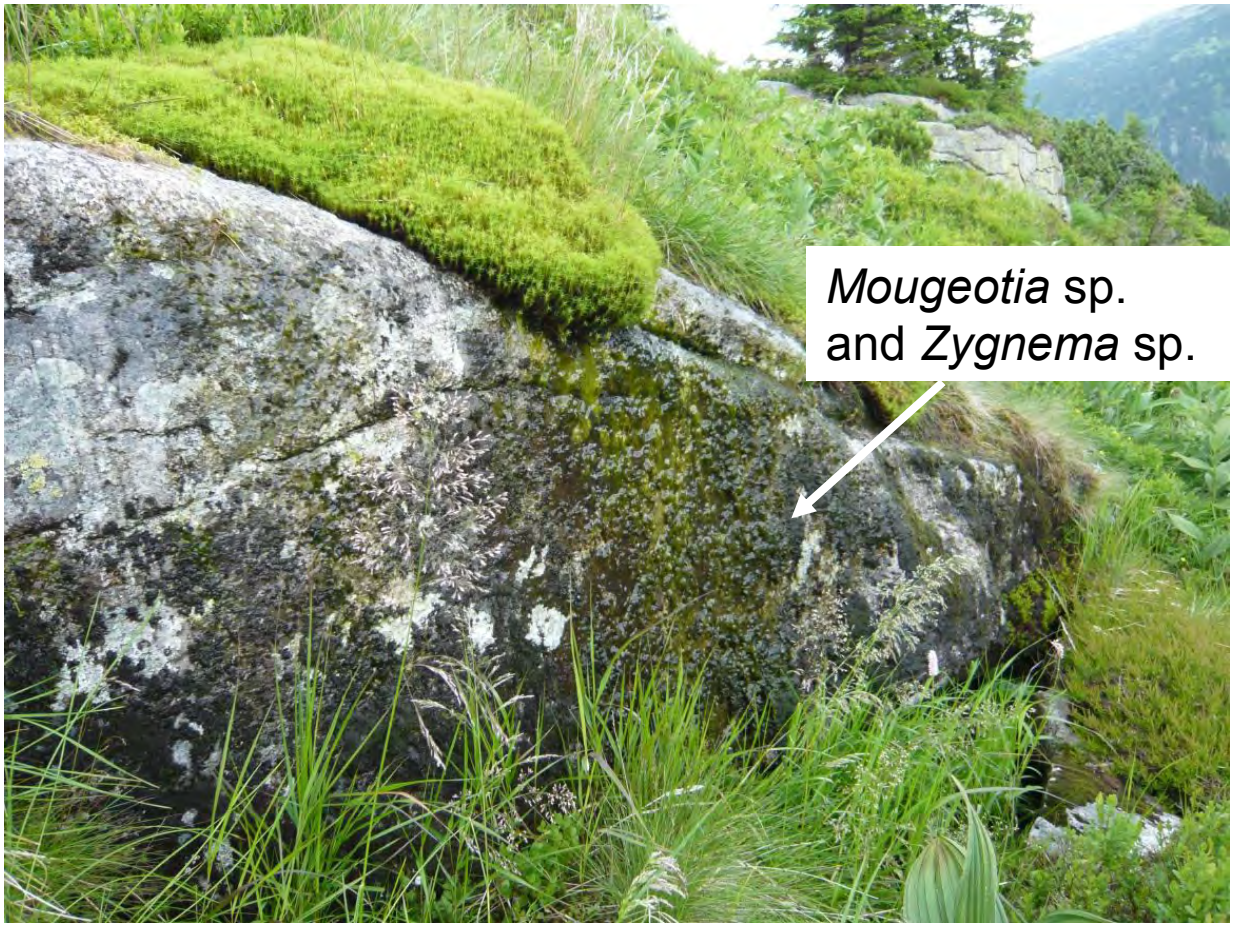
*Anthelia julacea*

## In total: 167 taxons

boreal-oceanic, cold climatic species
- *Lophozia atlantica* was found only on tops of Mts. in past; this is new locality

*Pohlia longicollis*

# RESULTS – CYANOBACTERIA & ALGAE



# 108 taxons in total

e.g. *Frustulia saxonica*, *Tabellaria flocculosa Eunotia exigua*

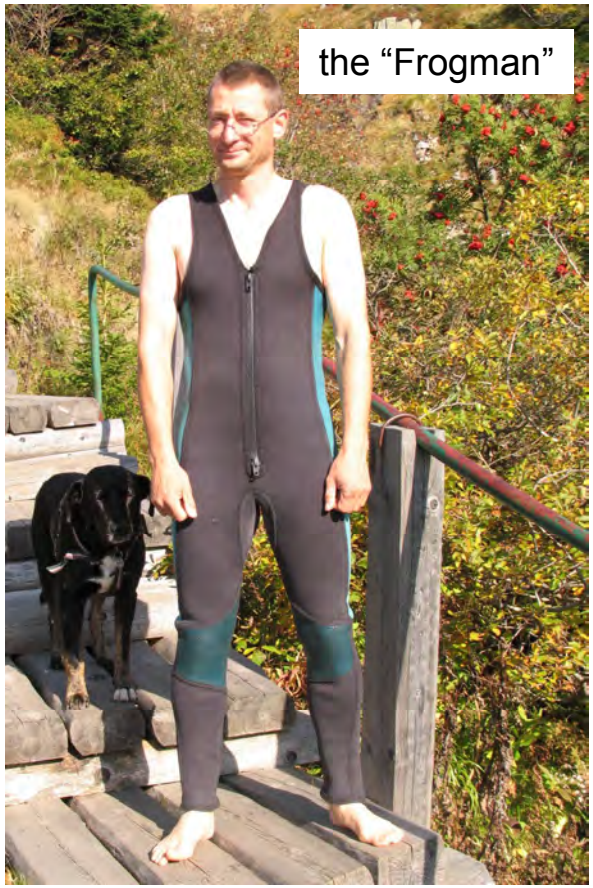
visible colonies of *Scytonema mirabile* (↓)
*Gloeocapsopsis magma* (red cover of stone)

*Chroococcus montanus – 2nd locality for CZ*

*Stigonema minutum*

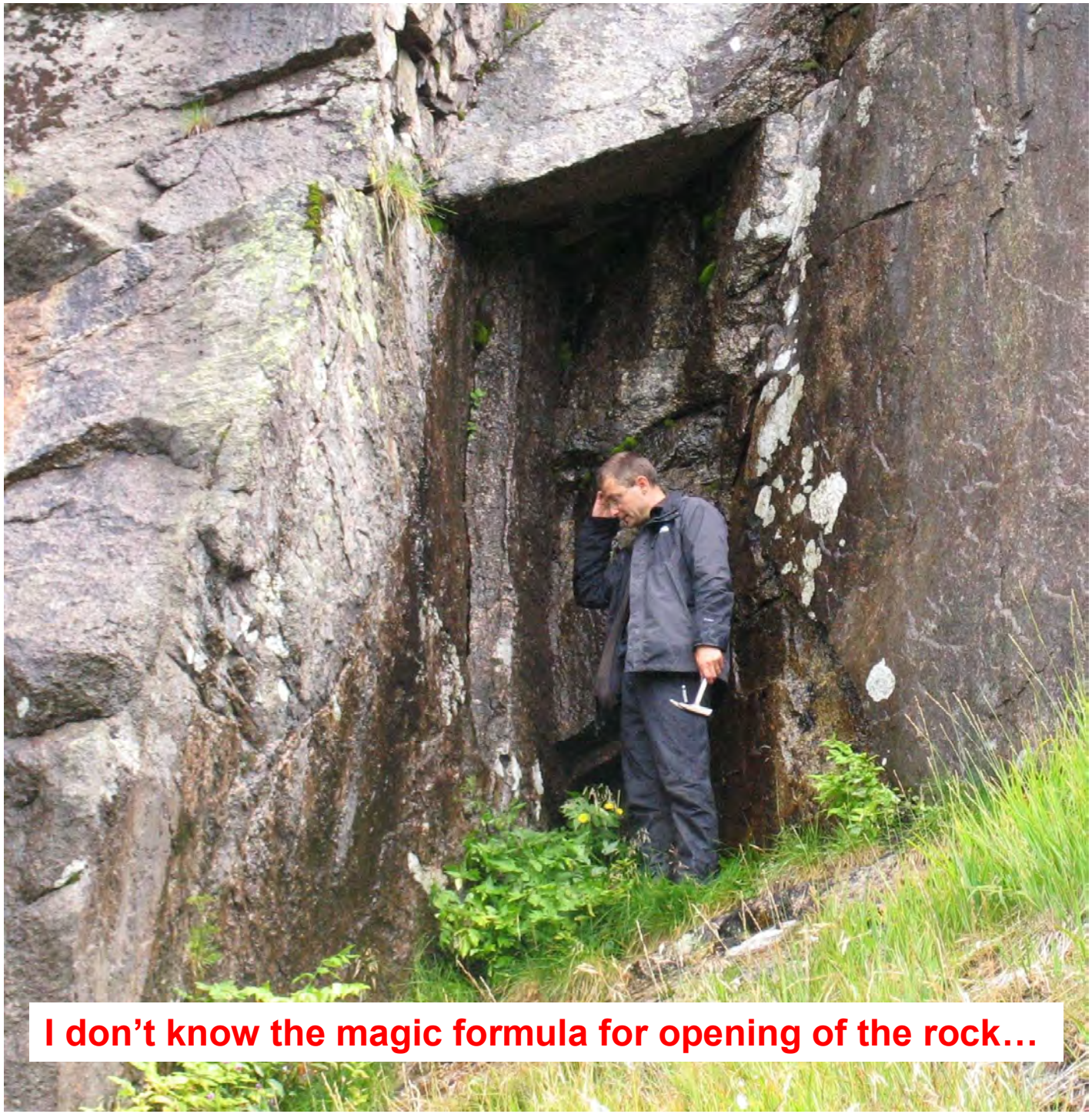
# Water fungi in waterfalls

4 waterfalls




# Plans for next years:

- publish data from the Harrachova jama cirque
- finish and publish inventory of waterfalls in Labský důl valley
- future mapping of other parts of Labský důl valley
  (and later all cirques in the Krkonoše Mts.)
- fungi ?


I don’t know the magic formula for opening of the rock…