

THE LICHEN FLORA OF THE NATIONAL PARK ČESKÉ ŠVÝCARSKO

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INTRODUCTION



Fig. 1 : Leprose lichens such as brilliant yellow *Chrysothrix chlorina* or grey-white *Lepraria* sp. div. grow in thick mats on overhanging rocks in humid localities (Photo by L. Voříšková, 1:1).

Fig. 2 (below): Thallus of *Chrysothrix chlorina* in detail (Photo by J. Halda, 18:1).



First lichen records from the area of the National Park České Švýcarsko* date back to Rabenhorst (1870). Majority of dispersely published data is included in several floristic papers and monographies. In 2000, the authors launched a detailed lichenological exploration of this area (Bayerová et al. 2001, Palice et al. 2001) which fruited in amendment of 157 lichens to so far known 57.



visited localities →

LICHEN FLORA OF SANDSTONES

- sandstones host many species primarily occupying epiphytic, epixylic or epigeaic niches, e.g. *Hypocenomyce caradocensis*, *H. scalaris*, *Phlyctis argena*, *Trapeliopsis glaucolepidea*, as well as lichens more-less specific for this kind of substrate, e.g. *Pertusaria ocellata*
- some crustose lichens e.g. *Caloplaca chrysojeta*, *Gyalecta jenensis* or *Lecidella stigmatea* belong to reliable indicators of higher lime content in sandstone

TERRICOLOUS LICHENS

- omnipresent in the area, well developed especially in man-made/influenced habitats like road-ditches, heaths etc.
- prospering autochthonous terricolous lichen communities are well developed mainly in well-lit relic pine forests on sandstone plateaus; they are potentially endangered by spreading of invasive *Pinus strobus*

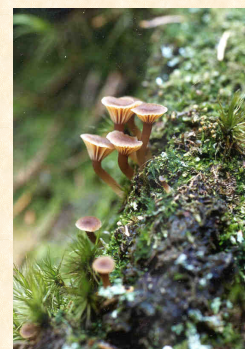


Fig. 5: The mushroom-forming lichen *Omphalina umbellifera* grow on mossy soil, rotting wood and peat (Photo by J. Halda, 1:1).

EPIPHYTIC LICHEN FLORA

- only several species dominate on single trees
- only three epiphytic macrolichens were scored regularly in the area: *Hypogymnia physodes*, *Parmelia saxatilis*, *Parmeliopsis ambigua*; while other epiphytic macrolichens are rare
- shrubby lichens like *Evernia prunastri*, *Usnea* or *Bryoria* sp. div. were not recently recorded so far
- microlichen species like *Japewia subaurifera*, *Ropalospora viridis*, *Micarea peliocarpa*, *M. viridileprosa* may sometimes cover large parts of trunks, while under normal conditions they produce smaller thalli intermingled among other lichen species
- the richest epiphytic lichen flora is developed in the protected valley of the rivulet Kamenice where many suboceanic elements grow; the valley forms European easternmost distributional limit for two microlichens: *Micarea pycnidiophora*, *Phaeographis inusta*
- they and other peculiarities represent probably relics of formerly much richer epiphytic lichenflora



Crustose epiphytic species such as *Graphis scripta* (Fig. 3: left, photo by J. Halda, 2:1) and *Thelotrema lepadinum* (Fig. 4: right, photo by J. Halda, 2:1) listed as extinct in Red-data book for the Northern Bohemia were re-found.

CONCLUSIONS

- ✚ approximately 190 species were recorded so far (sparse literature data included), which represents about 10% of the known Czech lichen flora
- ✚ 8 lichen species recorded in the area were not published from the Czech Republic so far: *Caloplaca chrysojeta*, *Gyalideopsis anastomosans*, *Lepraria elobata*, *Micarea pycnidiophora*, *M. viridileprosa*, *Phaeographis inusta*, *Veizdaea cobria*
- ✚ several findings represent second records for the country: *Chromatochlamys vezdae*, *Enterographa hutchinsiae*, *Micarea bauschiana*
- ✚ 2 epiphytes listed as extinct in Red-data book for the Northern Bohemia were re-found: *Graphis scripta*, *Thelotrema lepadinum*
- ✚ still many other lichens, however, seem to be extinct now in all the area of the National Park (e.g. *Bunodophoron melanocarpum*)
- ✚ the area of the National Park belongs - despite seeming monotony - to totally singular areas within the Czech Republic
- ✚ undoubtedly it deserves, besides systematic and targeted conservation, further research and attention not only from the part of lichenologists but also from experts in other biological fields

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* including the protected zone