Supplementary Material C:

SPECIES DIVERSITY OF PLANTS IN LANDSCAPE WITH PRESENT HISTORICAL AGRICULTURAL LANDFORMS

Vegetation cover on lynchets at the **Kohout** study site represents mesophytes, reflecting medium warm climate regions that cover most of Czechia. The study site lies at 450–550 m a.s.l. on the SW slope of Kohout hill. The surrounding species-poor grasslands, with undemanding species of wide ecological valency, are mowed regularly for a hay. The total number of species is higher than on lynchet, which is also given by the large area of the grasslands on terrace platforms. The HAL increases the value of the landscape, especially by supporting woody plants and elderly stands of trees to reach high coverage. Herbaceous plants grow only in ecotone habitats and in open spaces, which mostly feature meadow species and plants of shrubby vegetation with small amounts of forest species and abundant tree seedlings. The vegetation cover of HALs as well as the local natural conditions at the micro-scale are variable. The lists of species (Table C.1) include those present at 7 corridors of HALs within the studied region (see Figure C.1) and from the adjacent meadows, which were surveyed several times during 2017–2019 to cover all the present species.

The **Oblík** study site lies in the cultural rural landscape of thermophytes at elevations of 300–400 m a.s.l. on the SE slope of the hill. The location has high species diversity attributable to the basic and nutrient-rich bedrock. Accordingly, this area has been declared a national nature reserve. Endangered species thrive in all the vegetation stands at the foothill of Oblík hill. Dry grasslands can be observed between the HALs, which can be attributed to the climate conditions of 2018 and 2019 and intensive pasture damage. HAL vegetation is characterised by species that thrive on open stony habitats, similar to steppe plant communities. Woody species diversity is rich, with many thermophyte species that are rare or absent at the national level. Forest seedlings are present at this study site as the land is grazed but not mowed. Sampling was based on phytocoenological plots on transect along the HAL habitat, ecotone community, and adjacent grassland (terrace platform). The complete list of species (Table C.2) is based on 9 sampled transects from 2017 to 2019, and the location is shown in Figure C.2.

Within study a nomenclature of Danihelka et al. [86] was used.

Figure SC.1 Lines of HALs studied at Kohout site in the České Středohoří Mts. (orthophotomap 2019 © ČUZK)

Figure SC.2 Locations of sampling sites at Oblík in the České Středohoří Mts. with borders of the national nature reserve in red-beige (orthophotomap 2019 © ČUZK, AOPK ČR)

Table SC.1 *Full list of plant species present at Kohout (České Středohoří Mts.).*

SPECIES	HABITAT	
	HAL	grassland
Acer campestre	x	
Achillea millefolium		x
Agrimonia eupatoria		x
Agrostis capillaris		x
Alliaria petiolata	x	
Alopecurus pratensis		x
Anthriscus sylvestris	x	x
Arrhenatherum elatius		x
Atragalus glycyphlyllos		x
Betula pendula	x	
Brachypodium pinnatum	x	
Bromus benekenii	x	
Calamagrostis epigejos		x
Campanula persicifolia	x	
Campanula trachelium	x	
Cichorium intybus		x
Cirsium arvense		x
Clinopodium vulgare		x
Cornus sanguinea	x	
Corylus avellana	x	
Crataegus sp.	x	
Crepis biennis		x
Dactylis glomerata	x	x
Deschampsia cespitosa		x
Elymus repens	x	
Euonymus europaeus	x	
Euphorbia cyparissias	x	x
Festuca rubra		x
Fraxinus excelsior	x	
Galium aparine	x	
Galium mollugo		x
Galium verum		x
Geranium columbinum		x
Geranium robertianum	x	
Geum urbanum	x	
Heracleum sphondylium		x
Hypericum maculatum		x
Hypericum perforatum		x
Knautia arvensis	x	x
Lactuca perennis		x

SPECIES	HABITAT	
	HAL	grassland
Lamium album	x	
Leontodon autumnalis		X
Linaria vulgaris		X
Lolium perenne		X
Lotus corniculatus		x
Malus domestica x sylvestris	x	
Myosotis arvensis		x
Odontites vernus subsp. serotinus		x
Origanum vulgare		x
Phleum phleoides		x
Phleum pratense		x
Plantago lanceolata		x
Plantago major		x
Poa nemoralis	x	x
Poa pratensis		x
Polygonatum multiflorum	x	
Polygonum aviculare agg.		x
Primula veris	x	
Prunus avium	x	
Prunus spinosa	x	x
Pyrus pyraster	x	
Ranunculus acris		x
Ribes uva-crispa	x	
Rosa canina	x	
Rubus idaeus	x	
Rumex crispus		x
Rumex obtusifolius		x
Stellaria graminea		x
Tanacetum vulgare		x
Trifolium hybridum		x
Trifolium medium		x
Trisetum flavescens		x
Veronica chamaedrys		x
Vicia cracca		x
Vicia hirsuta	x	x
Vicia sepium		x
Vicia tetrasperma		x

Table SC.2 *Full list of plant species present at Oblík (České Středohoří Mts.)*

SPECIES	**HABITAT**		
	HAL	ecotone	grassland
Acer campestre	x	x	
Acinos arvensis		x	
Adonis vernalis		x	x
Agrimonia eupatoria	x	x	
Ajuga genevensis		x	
Allium vineale	x	x	
Arabis hirsuta			x
Arenaria serpyllifolia	x		
Artemisia pontica		x	x
Astragalus cicer		x	x
Astragalus danicus	x		x
Astragalus glycyphyllos			x
Avenula pubescens			x
Ballota nigra		x	
Brachypodium pinnatum		x	x
Bromus sterilis	x	x	
Campanula persicifolia		x	x
Campanula rapunculoides		x	x
Capsella bursa-pastoris	x		
Carex muricata agg.		x	
Carex praecox		x	
Carex tomentosa			x
Cerastium holosteoides			x
Chaerophyllum temulum	x	x	
Cirsium arvense			x
Cirsium vulgare			x
Corylus avellana	x	x	
Cotoneaster integerrimus			x
Dactylis glomerata		x	x
Dianthus carthusianorum			x
Elymus caninus		x	
Elymus repens		x	
Eryngium campestre			x
Erysimum crepidifolium	x	x	
Euonymus europaeus	x		
Falcaria vulgaris		x	x
Festuca rubra			x

SPECIES	**HABITAT**		
	HAL	ecotone	grassland
Festuca valesiaca	x		
Filipendula vulgaris		x	x
Galium aparine	x	x	
Galium mollugo agg.	x	x	
Geranium robertianum	x	x	
Geum urbanum	x	x	
Hieracium murorum		x	
Knautia arvensis			x
Koeleria macrantha			x
Lactuca serriola	x		
Linum austriacum			x
Lithospermum officinale		x	
Lonicera caprifolium	x		
Lotus corniculatus			x
Lotus maritimus			x
Luzula campestris			x
Medicago falcata			x
Medicago lupulina			x
Melampyrum arvense		x	x
Melica transsilvanica	x	x	
Mercurialis perennis	x		
Myosotis arvensis		x	x
Myosotis stricta			x
Ononis spinosa			x
Phleum phleoides			x
Picris hieracioides		x	
Pillosela officinarum		x	x
Pimpinella saxifraga agg.		x	
Plantago media			x
Poa bulbosa	x		
Poa compressa	x	x	
Poa nemoralis	x		
Poa pratensis	x		x
Polygala comosa			x
Potentilla arenaria	x		
Prunus avium	x	x	
Prunus cerasus		x	
Prunus spinosa		x	x
Pyrus communis		x	
Pyrus pyraster	x	x	

SPECIES	**HABITAT**		
	HAL	ecotone	grassland
Quercus petraea	x		
Rhamnus cathartica	x	x	
Ribes uva-crispa	x	x	
Sanguisorba minor		x	x
Scabiosa ochroleuca			x
Sedum abum	x		
Sedum sexangulare	x		
Silene otites	x		
Stellaria media	x		
Stipa glabrata	x		x
Stipa pennata		x	x
Stipa tirsa			x
Teucrium chamaedrys		x	
Thlaspi perfoliatum	x		
Thymus pannonicus			x
Thymus praecox			x
Tragopogon orientalis			x
Trifolium pratense			x
Trifolium alpestre			x
Trifolium campestre			x
Trifolium dubium			x
Trifolium repens			x
Ulmus minor	x	x	
Verbascum lychnitis	x		
Veronica arvensis	x		x
Veronica prostrata			x
Veronica teucrium			x
Veronica verna	x		
Viburnum opulus	x		
Vicia hirsuta			x