

Supplementary Material

**Appendix 2. Application possibilities of fine-scale aerial surveys  
presented at the study sites**

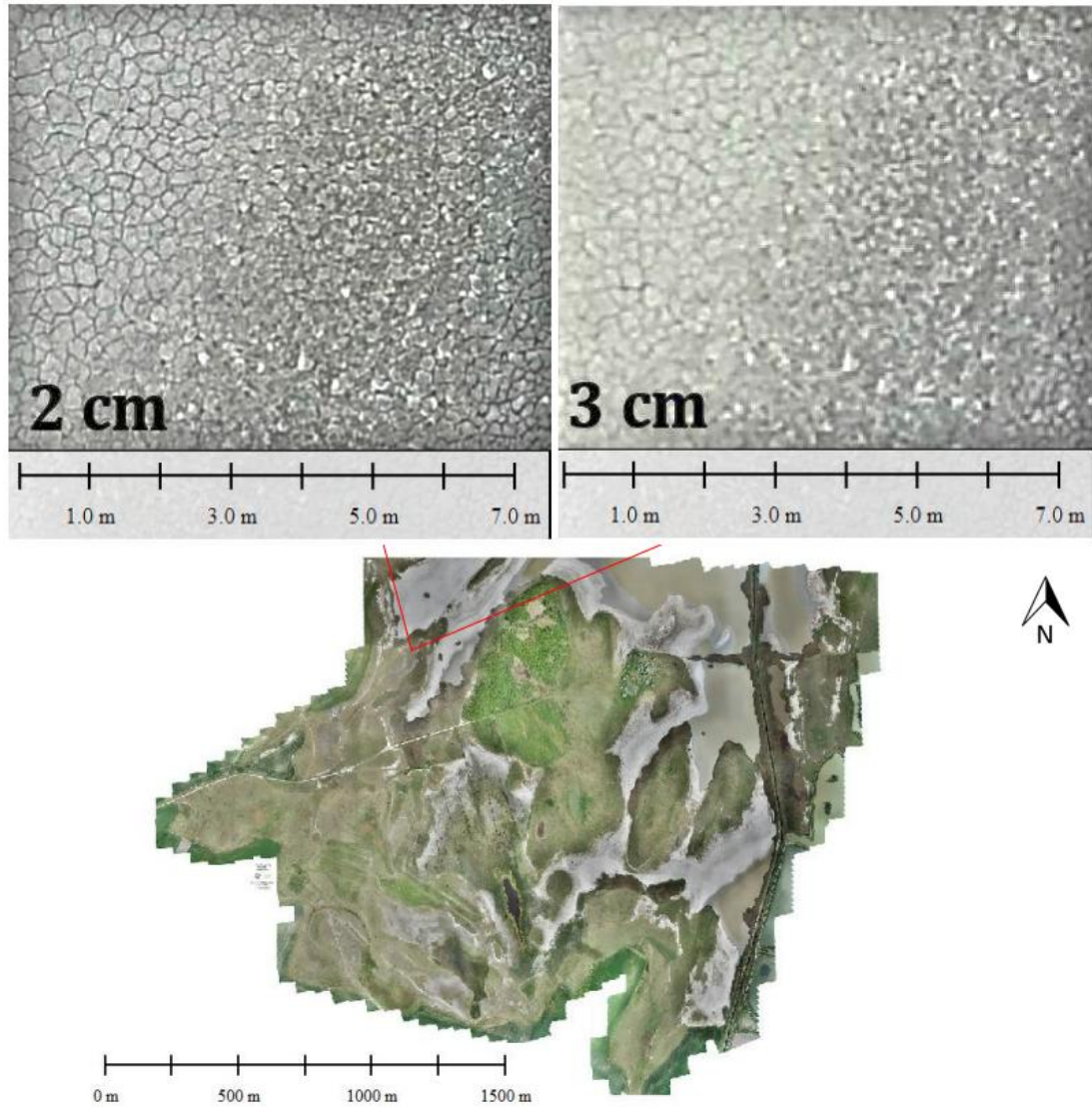


Figure 1 of Supplementary 2. Comparison of 2 cm and 3 cm spatial resolution orthophoto images of the same very small cutouts at temporal saline lake of Böddi-szék sample area, Kiskunság National Park, Hungary. The pattern of fissures of the dried out muddy bed is the same, but the image is much blurry at 3 cm.



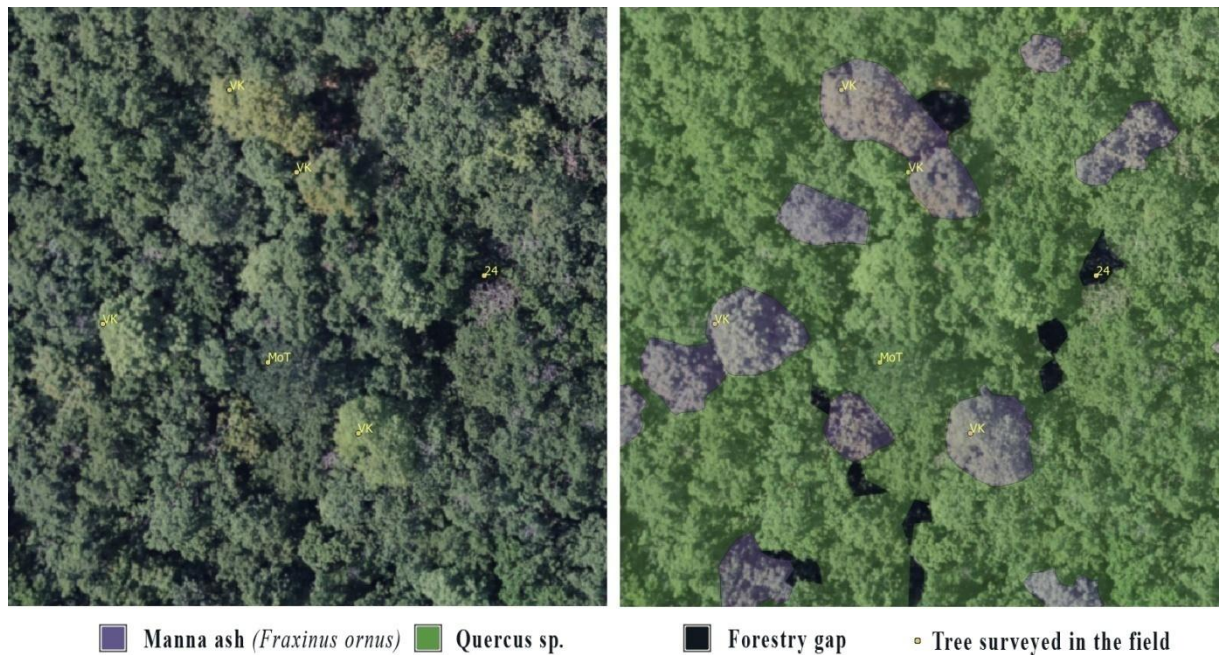


Figure 2 of Supplementary 2. Classification of the upper canopy orthophoto image in summer at Nagy Istrázsa-hegy Strict Forest Reserve, Hungary covered by downy oak (*Quercus pubescens* - MoT), and manna ash (*Fraxinus ornus* - VK) trees. The black holes are small gaps. (Source: Bakó, Molnár, Horváth, Neumann - Centre for Ecological Research, INTERSPECT 2018)



Figure 3 of Supplementary 2. Beaver impact study area at Perőcsény fishing lake, Hungary (part of the Orzsán stream sample area). Among other factors, the effects of the Eurasian beaver (*Castor fiber*) can be studied. Beavers – as ecosystem engineers - are able to alter their habitats through their building and selective foraging activity. Examination and consideration of these effects are gaining increasing importance because of the rapid spread of the reintroduced, native, and protected species. Systematic aerial monitoring allows us to compare field data with vegetation changes, for example, tree canopy



cover, amount of beaver-made deadwood, and health of damaged large trees. Simultaneous field and aerial surveys help to understand and evaluate the site-specific ecological effects of the species. 1: deadwood, 2: fresh cut, 3: incompletely felled, broken but living willow, 4: undamaged willows, 5: paths of game species and beavers in the reedbed (Photo Credit: Bakó – Juhász – INTERSPECT 2018)



Figure 4 of Supplementary 2. Orzsán stream sample area from Börzsöny Mountains, Hungary. Among other factors, the effects of beavers can be studied. 1: beaver dam covered by the canopy layer, 2: open water surface, 3: artificial section of the streambed, 4: reeds appeared on the water bank, 5: dead trees and shrubs in the impounded water, 6: softwood trees felled or debarked by the beaver – reeds and shrubs (*Cornus sanguinea*, *Prunus spinosa*) are closing around them, 7: most of the trees under the beaver dam seem undamaged. (Photo Credit: Juhász – INTERSPECT 2018)

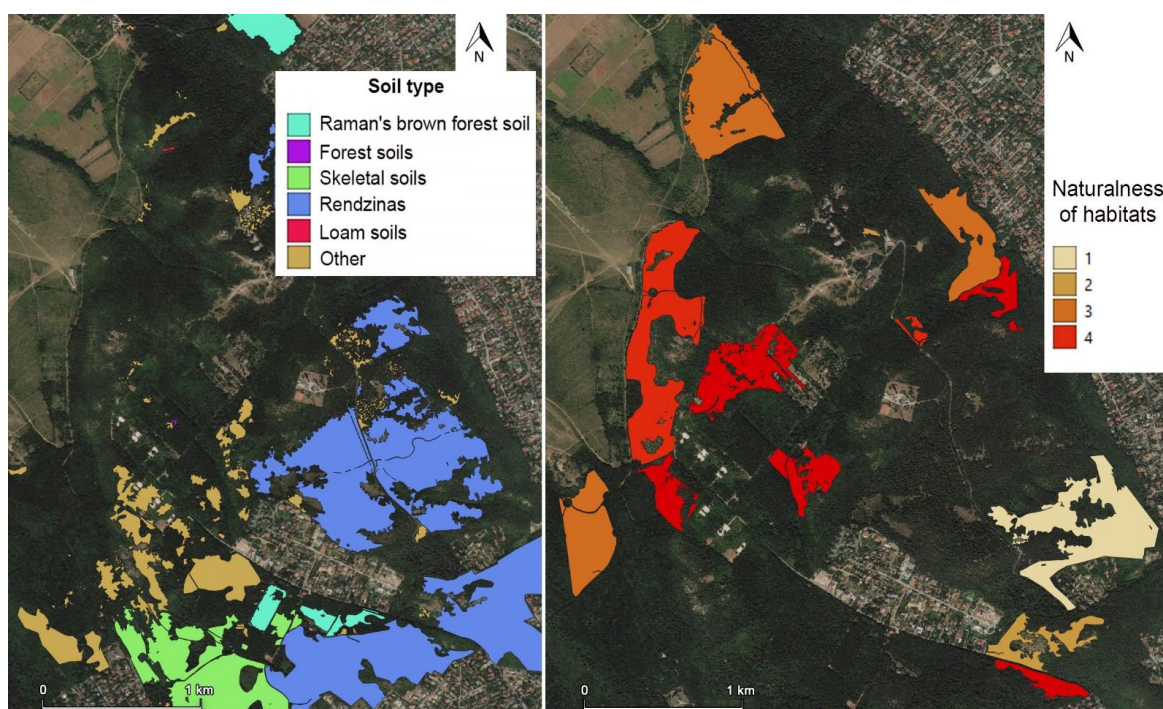


Figure 5 of Supplementary 2. Potential production sites of two mushroom species (a: *Tricholoma terreum*, b: *Morchella esculenta*) based on their observed ecological preferences against soil conditions and habitat types in case of Hármashatár Mountain site. (Photo Credit: Bakó, Molnár – INTERSPECT)