

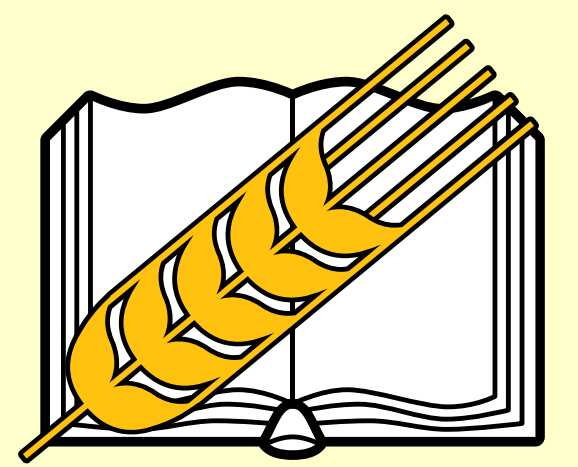
Occurrence of archaeophytes on arable land in the Czech Republic - field survey in 2006-2008



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INTRODUCTION

Archaeophytes (naturalized non-native plant species, firstly introduced prior to 1492) make substantial part in species composition of weed communities on arable land in all European countries. Loss of species diversity after Second World War caused by intensification of agriculture refers mainly to this group.

OBJECTIVE

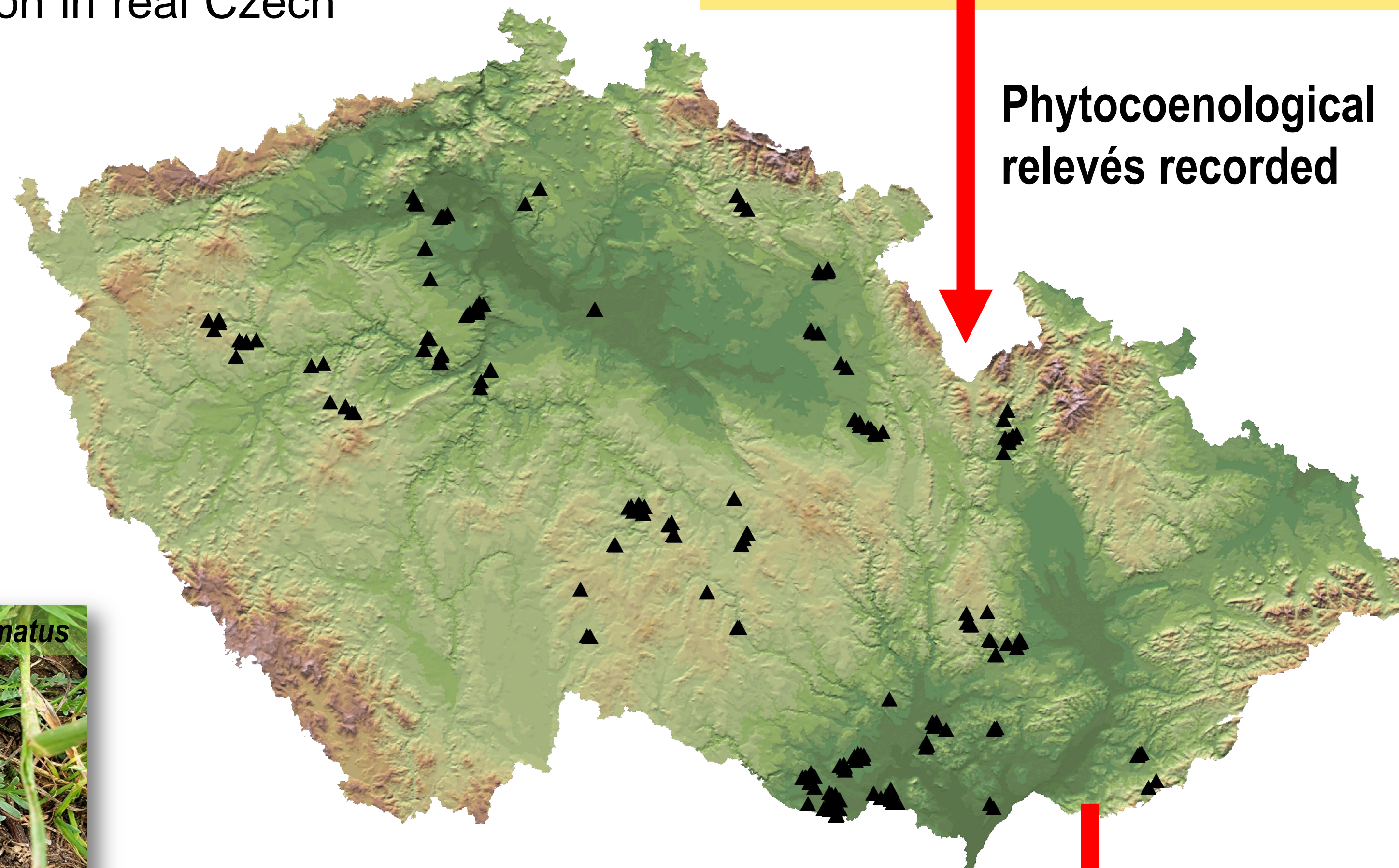
The aim of our study was to make an inventory of species composition in real Czech farms and compare current status with results of previous studies.

METHODOLOGY

The field survey was conducted at 27 conventional and 35 organic farms in 2006-2008. Fields with winter cereals, spring cereals and root crops (wide-row spring crops) were selected for a sampling. In each sampled field, one phytocoenological relevé of standard size of 100 m² was recorded in the central part of the field. In total, 290 phytocoenological relevés were carried out, 132 thereof in organic farms and 158 in conventional farms.



Phytocoenological relevés recorded



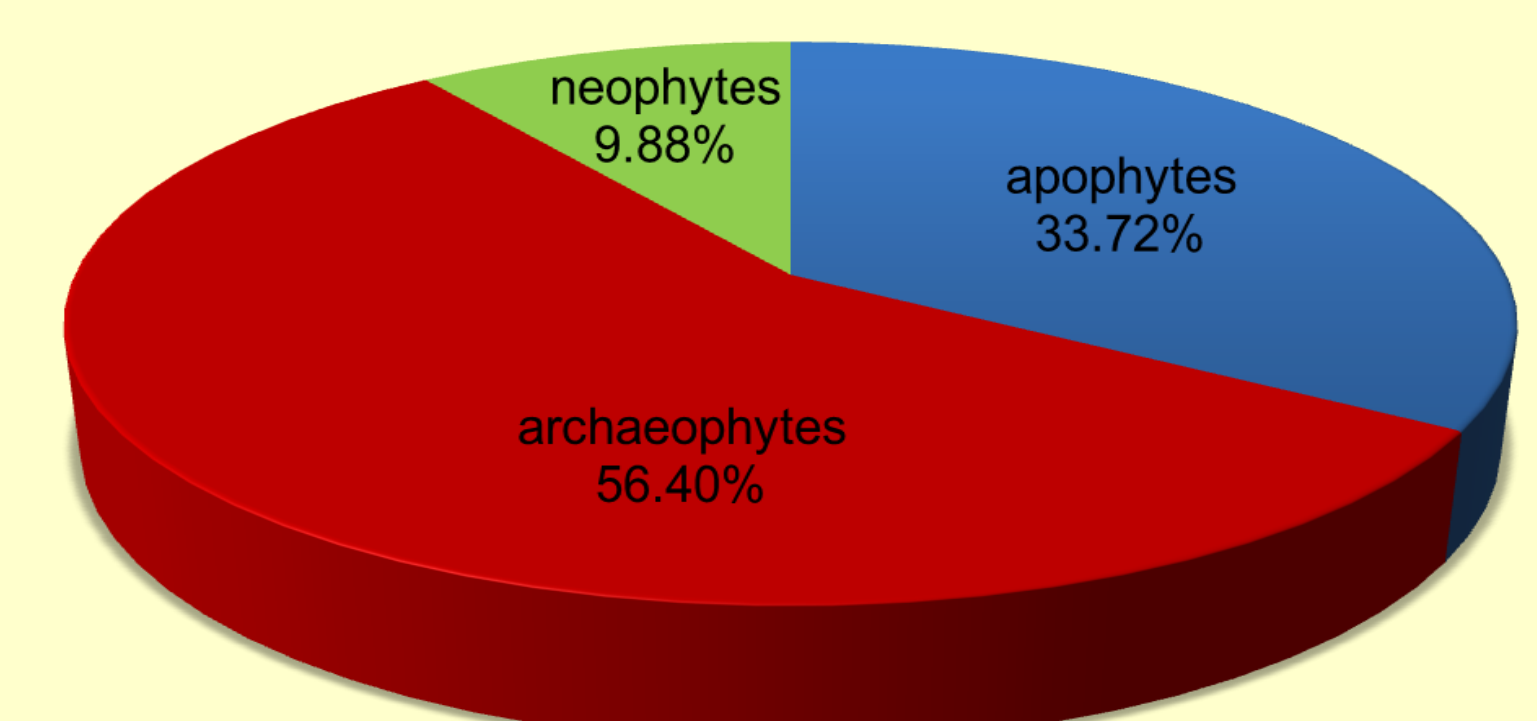
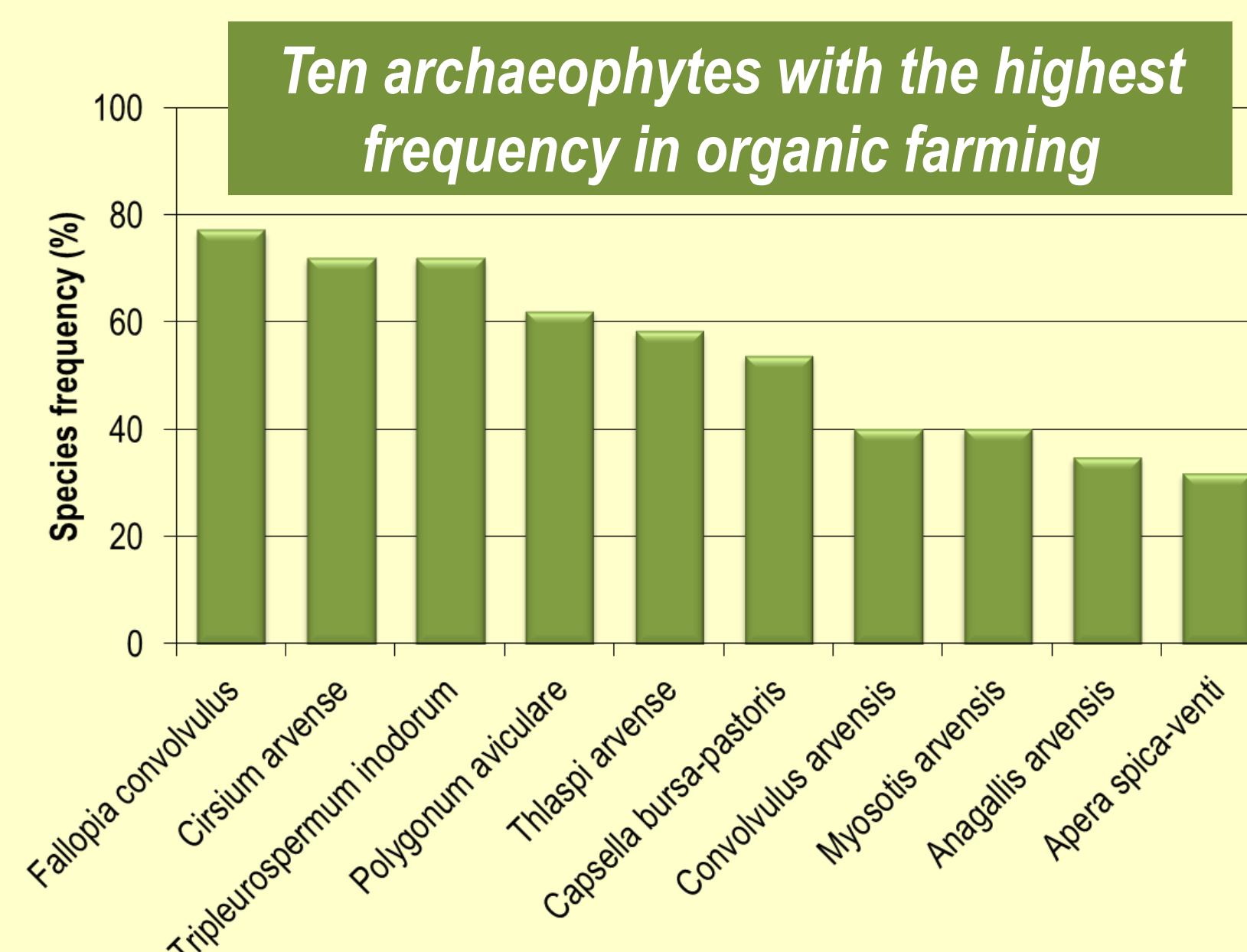
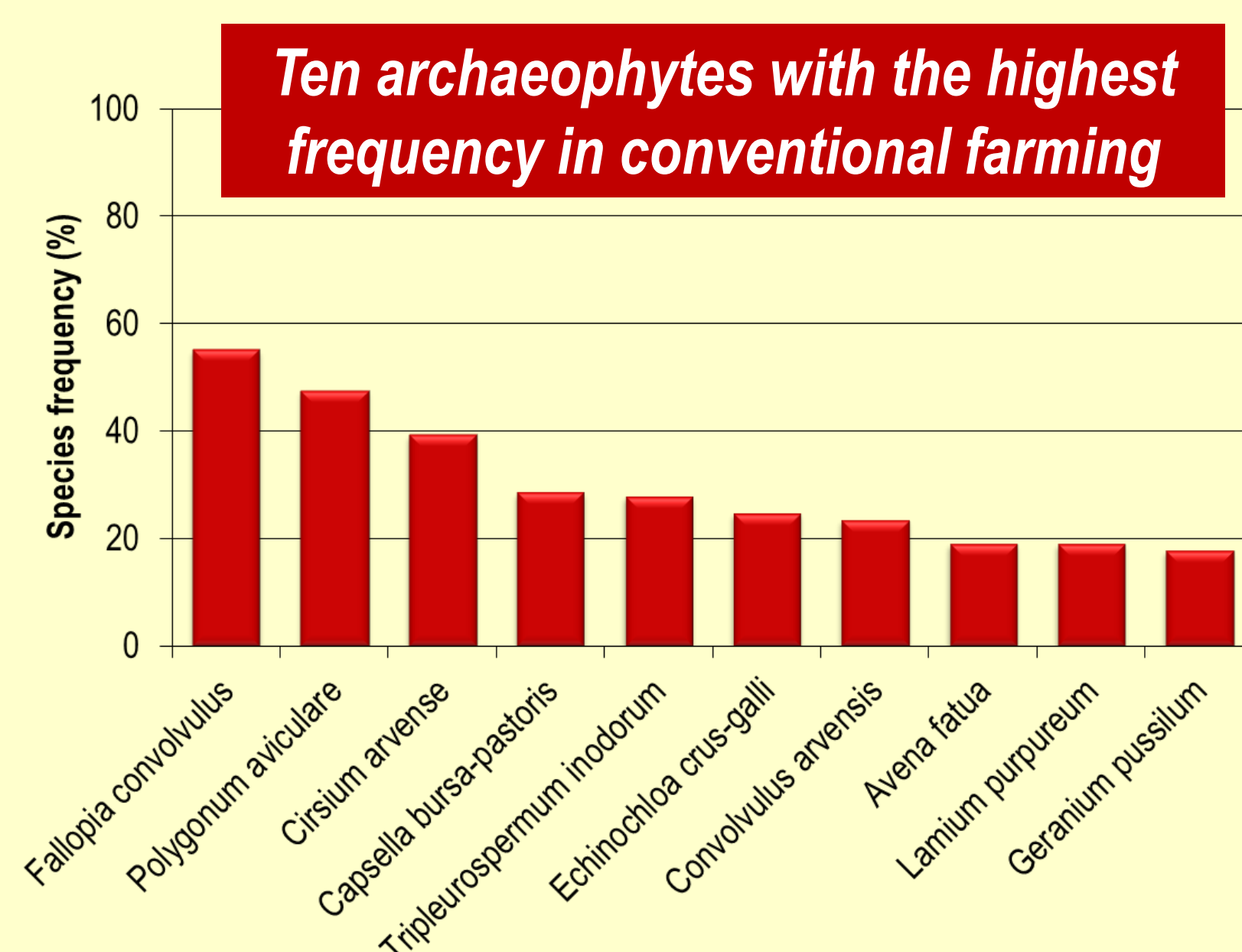
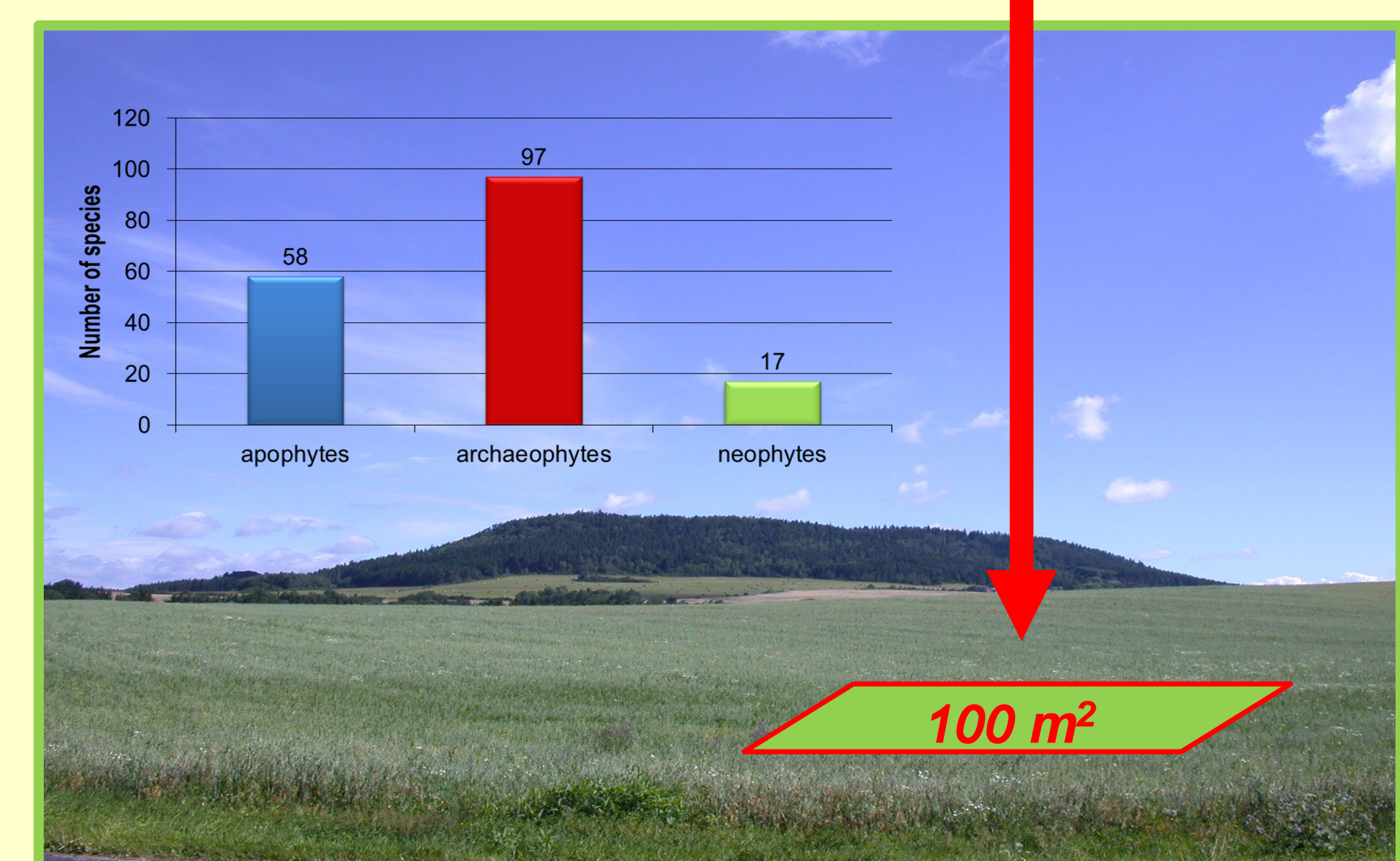
Adonis aestivalis



Coronopus squamatus

RESULTS

In total, 172 weed species were found (volunteer crops were not included). Weed species that were found were classified according to their status as apophytes, archaeophytes and neophytes. Among observed species, 56.4 % were considered as archaeophytes (97 species), 33.2 % apophytes (58 species) and 9.88 % neophytes (17 species). Sixteen species from observed archaeophytes are listed on the Black and Red list of vascular plants of the Czech Republic, five of which are classified as endangered (EN, IUCN classification) (*Veronica agrestis*, *Odontites vernus*, *Stachys annua*, *Adonis aestivalis* and *Coronopus squamatus*). Results of the study show further decrease of archaeophytes in current weed communities.



Proportion of archaeophytes, apophytes and neophytes among species found