

# Macro-remain Analysis of the High Medieval Sediments of Former Minorite Monastery in Olomouc, Czech Republic

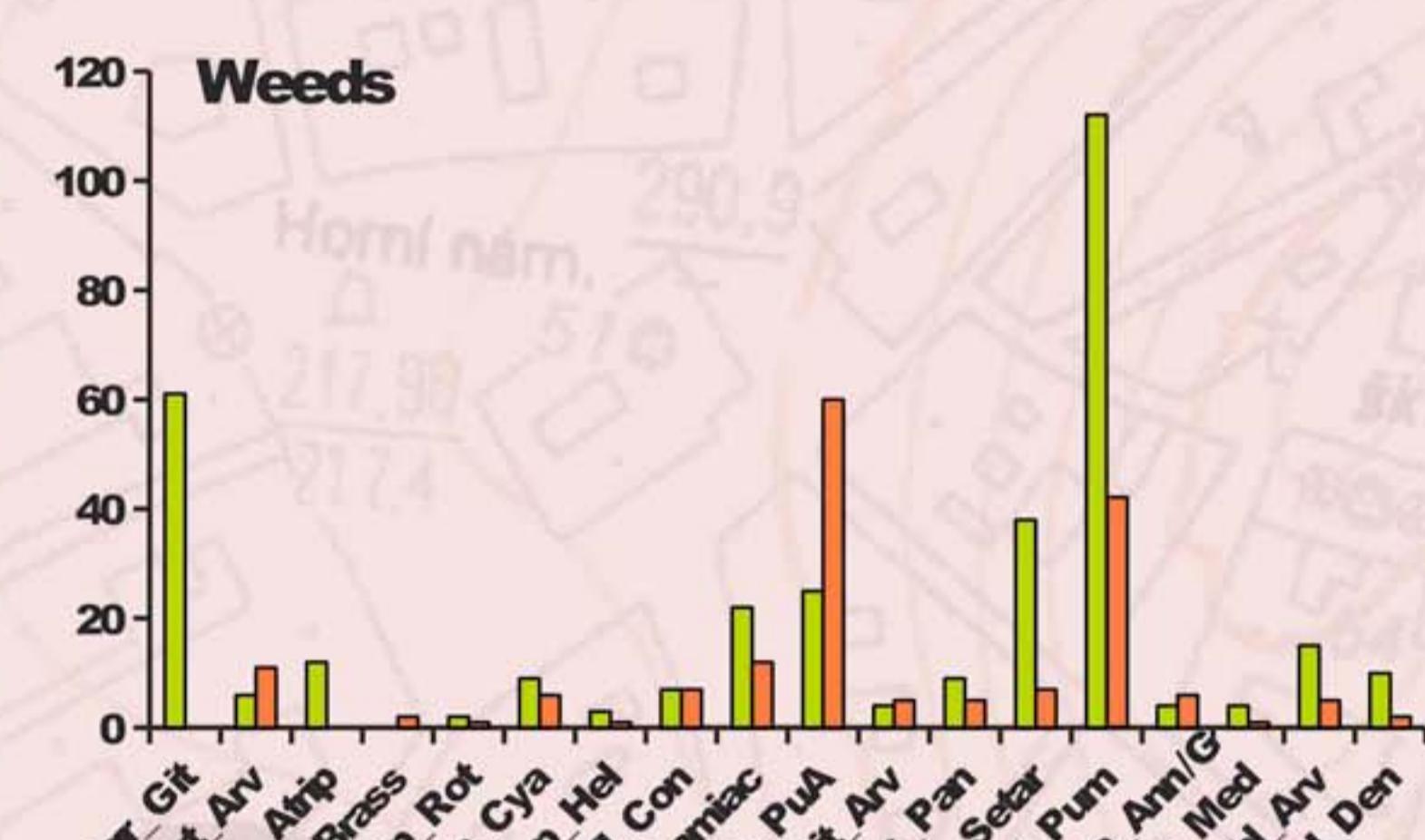


During the reconstruction of depository in the city of Olomouc, the relicts of the Medieval sediments were excavated. Medieval layers contained wood fragments, leather and bone fragments. According to the sherds chronology, the sediments were dated back to the High Medieval period.

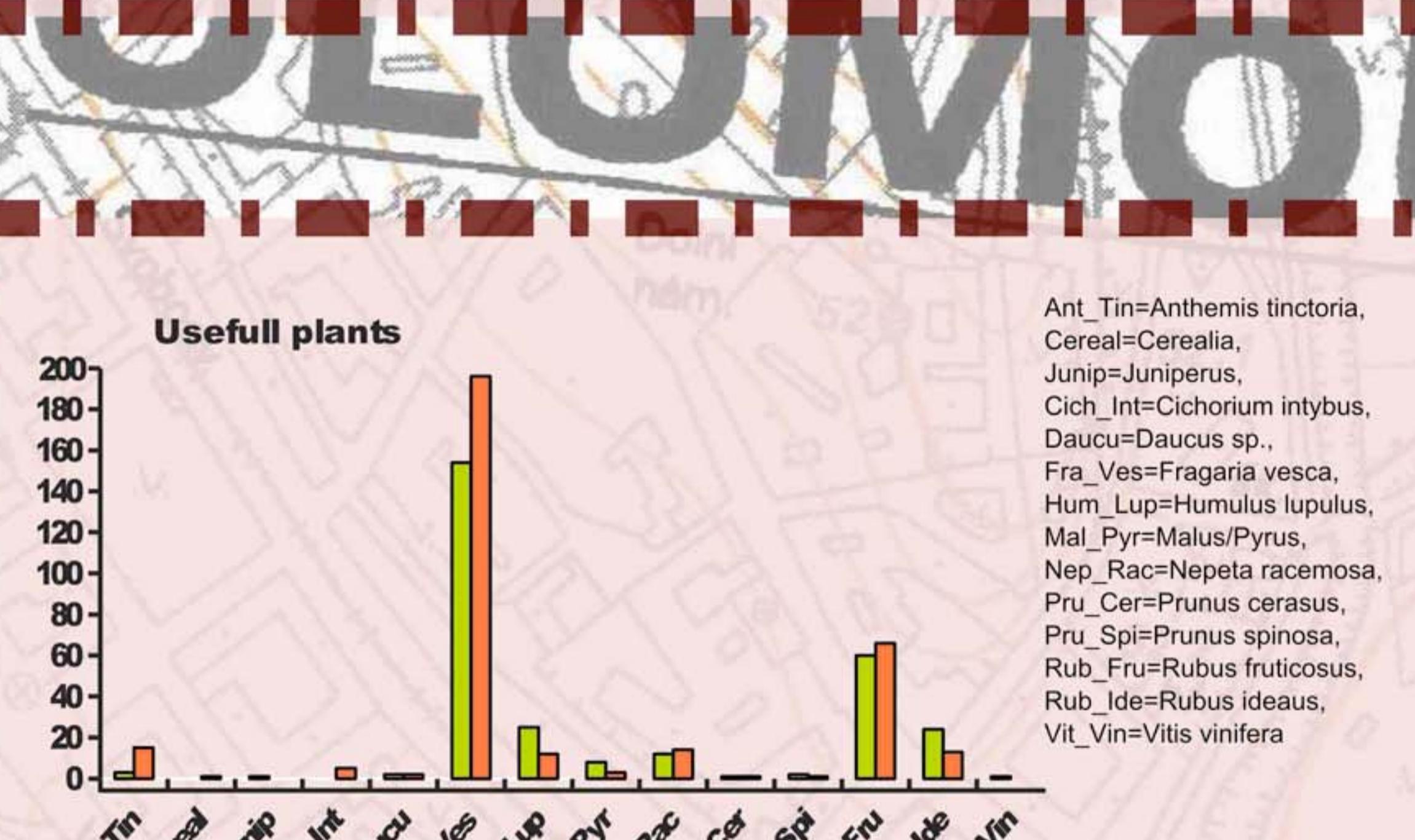
Excavated area was probably a part of the Minorite Monastery. On the other hand, future research reveal that in that area Jewish ghetto took place since 11th century. Because of incertanities owing to the reconstruction of the town in 18th century we cannot distinguish what theory to decide.

Termophilous species composition had been found. That is in accordance with phytogeographical situation in Moravian thermophytics. Both cornfield, vineyard and fellow land weeds were found. Most of them are diagnostic or dominant species of vegetation class "Se calitea", alliance "Caucalidion lapullae".

Some of the weed species found are very rare now, though they have been very common. It is due the change of agro-techniques, the usage of herbicides or more effective cleaning of seeds. Agrostemma githago, Bupleurum rotundifolium or Stachys annua these species are now considered as "endangered" elements of flora of the Czech Republic.



Agr\_Git=Agrostemma githago, Ant\_Arv=Anthemis arvensis, Atrip=Atriplex sp., Brass=Brassica sp., Bup\_Rot=Bupleurum rotundifolium, Cen\_Cya=Centaurea cyanus, Eup\_Hel=Euphorbia helioscopia, Fal\_Con=Fallopia convolvulus, Lamiac=Lamiaceae, Lam\_PuA=Lamium purpureum/amplexicaule, Lit\_Arv=Lithospermum arvense, Nes\_Pan=Neslia paniculata, Setar=Setaria sp., Set\_Pum=Setaria pumila, Sta\_Ann/G=Stachys annua/germanica, Ste\_Med=Stellaria media, Thl\_Arv=Thlaspi arvense, Val\_Den=Valerianella dentata



Ant\_Tin=Anthemis tinctoria, Cereal=Cerealia, Junip=Juniperus, Cich\_Inf=Cichorium intybus, Daucu=Daucus sp., Fra\_Ves=Fragaria vesca, Hum\_Lup=Humulus lupulus, Mal\_Pyr=Malus/Pyrus, Nep\_Rac=Nepeta racemosa, Pru\_Cer=Prunus cerasus, Pru\_Spi=Prunus spinosa, Rub\_Fru=Rubus fruticosus, Rub\_Ide=Rubus ideaus, Vit\_Vin=Vitis vinifera

These plants could be either planted or collected in the near vicinity. In case of "monastery garden" the first hypothesis will be more plausible. We could also assume, that *Cichorium* could be sub-species *Cichorium intybus* subsp. *foliosum* that was used as a ersatz coffee. *Juniperus* species is most probably seed of *J. sabina*. It was often planted near minorite gardens and used as abortivum or for healing kidney or urinary system. Most interesting are seeds of *Nepeta racemosa*, that is non-native species in Czech republic and was imported from Caukasus. It is planted and used as healing plant.

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*Anthemis tinctoria*



*Cuccubalus baccifer*



*Bupleurum rotundifolium*



*Thalictrum cf. minus*



*Valerianella dentata*



*Agrostemma githago*



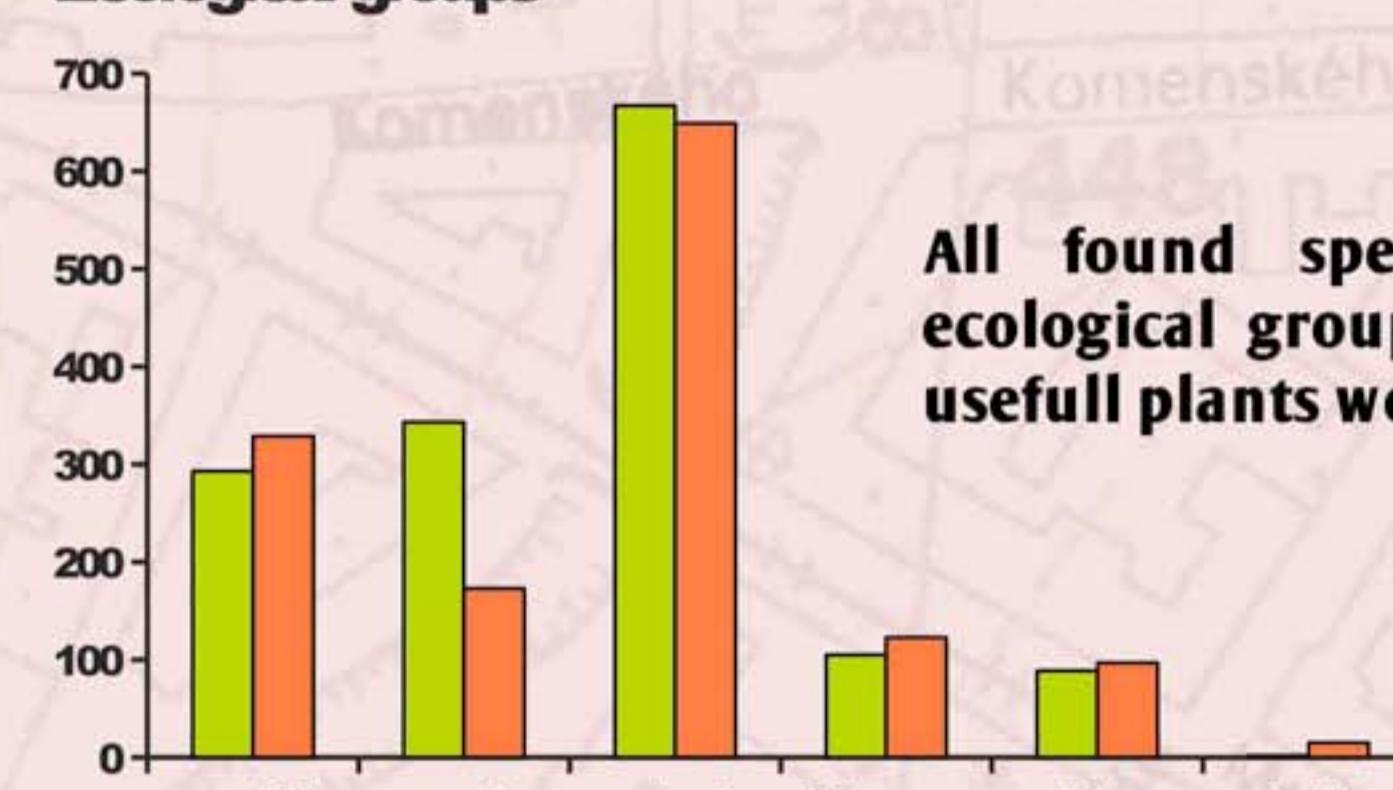
*Setaria glauca*



*Nepeta racemosa*

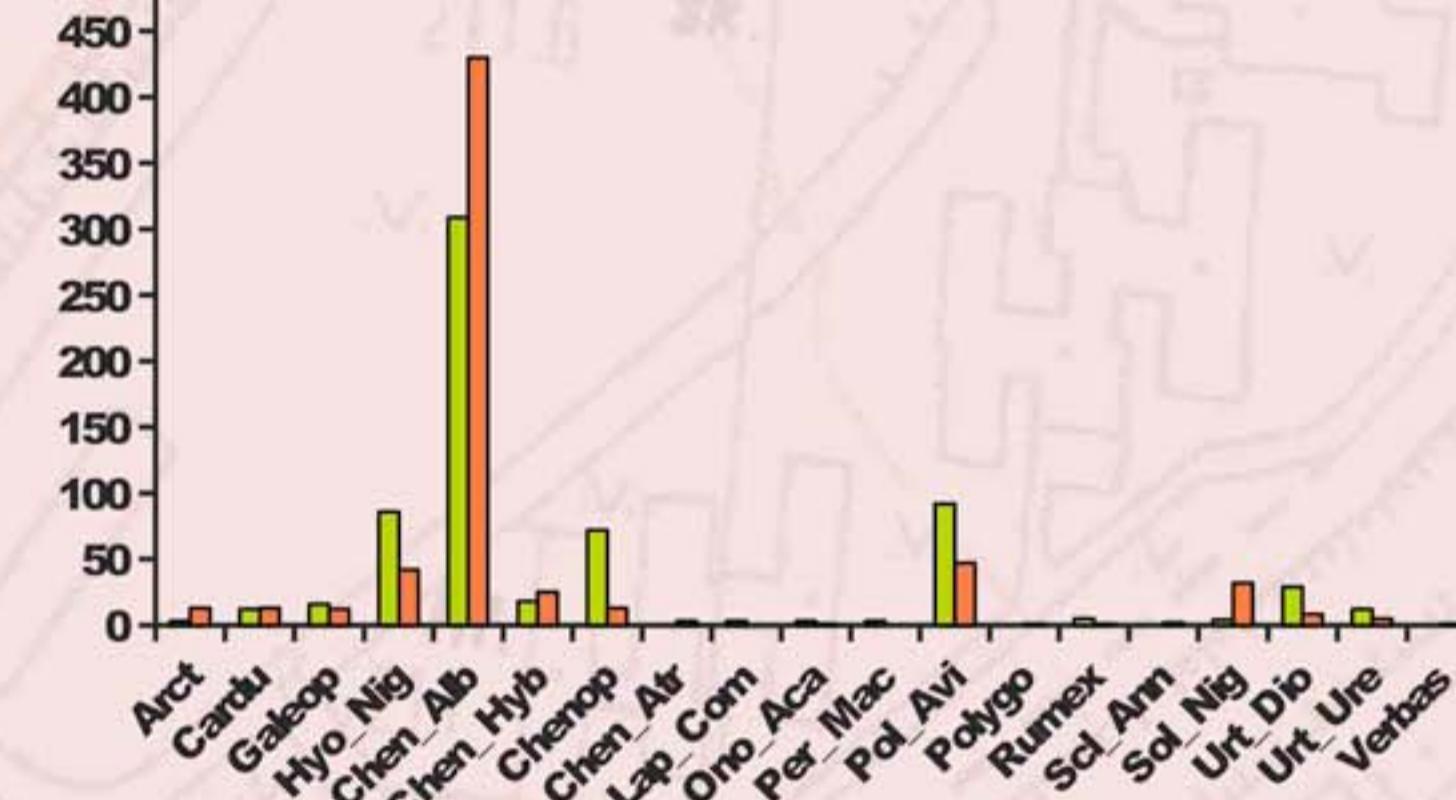


Ecological groups



All found species were divided into ecological groups - ruderals, weedes and usefull plants were most abundant

Ruderals



Arct=Arctium sp., Cardu=Carduus sp., Galop=Galeopsis sp., Hyo\_Nig=Hyoscyamus niger, Chen\_Alb=Chenopodium album, Chen\_Hyb=Chenopodium hybridum, Chen\_Atr=Chenopodium/Atriplex, Lap\_Com=Lapsana communis, Ova\_Aca=Onopordum acanthinum, Per\_Mac=Persicaria maculosa, Pol\_Avi=Polygonum aviculare, Per\_Lap=Polygonum laphyllum, Polygo=Polygonum sp., Rumex=Rumex sp., Scl\_Ann=Scleranthus annuus, Sol\_Nig=Solanum nigra, Urt\_Dio=Urtica dioica, Urt\_Ure=Urtica urens, Verbas=Verbascum sp.

Moist area species reflect vegetation of the river floodplain in the near vicinity of Morava river.

These species build association: *Senecion fluvialis*

*Ranunculus sardous* - grows on denudated bottoms of ponds is a species very endangered now

