Research task: The recognition and mapping of the main types of vegetation in the Olkusz ore-bearing Region

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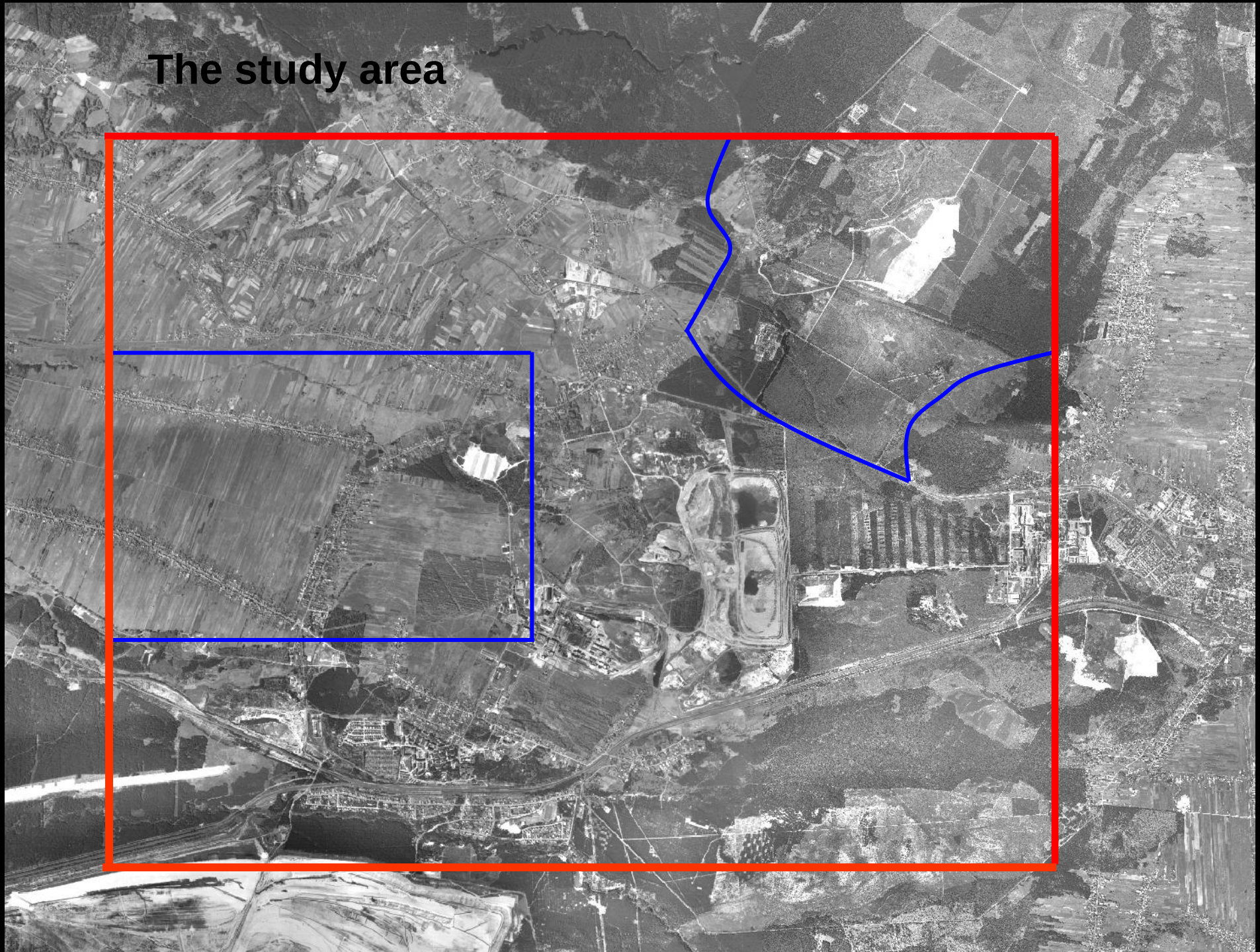
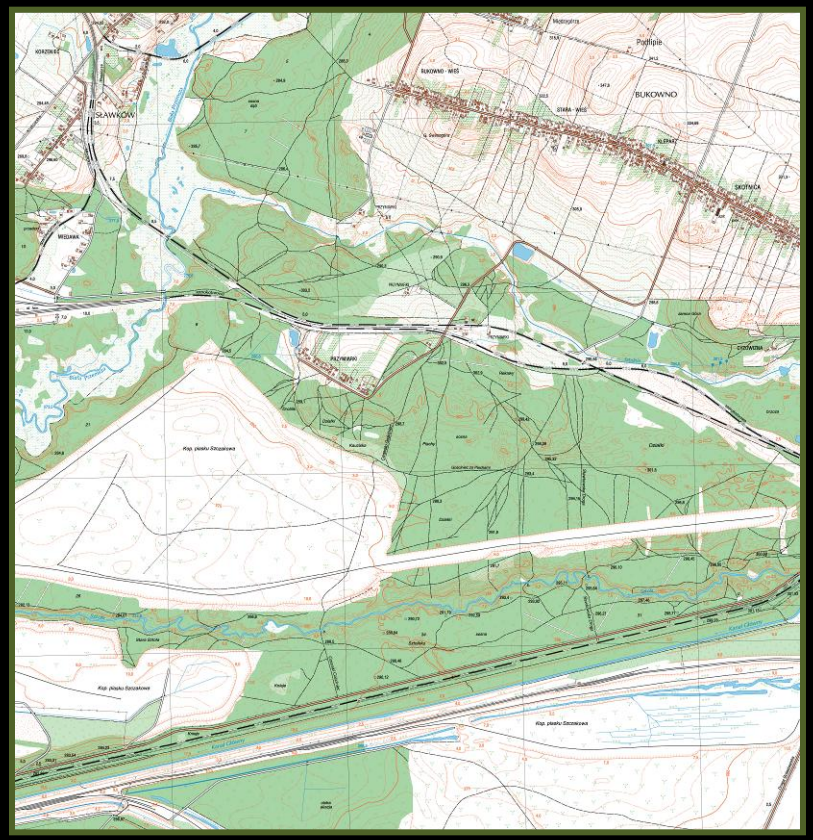
The study area



1:5000

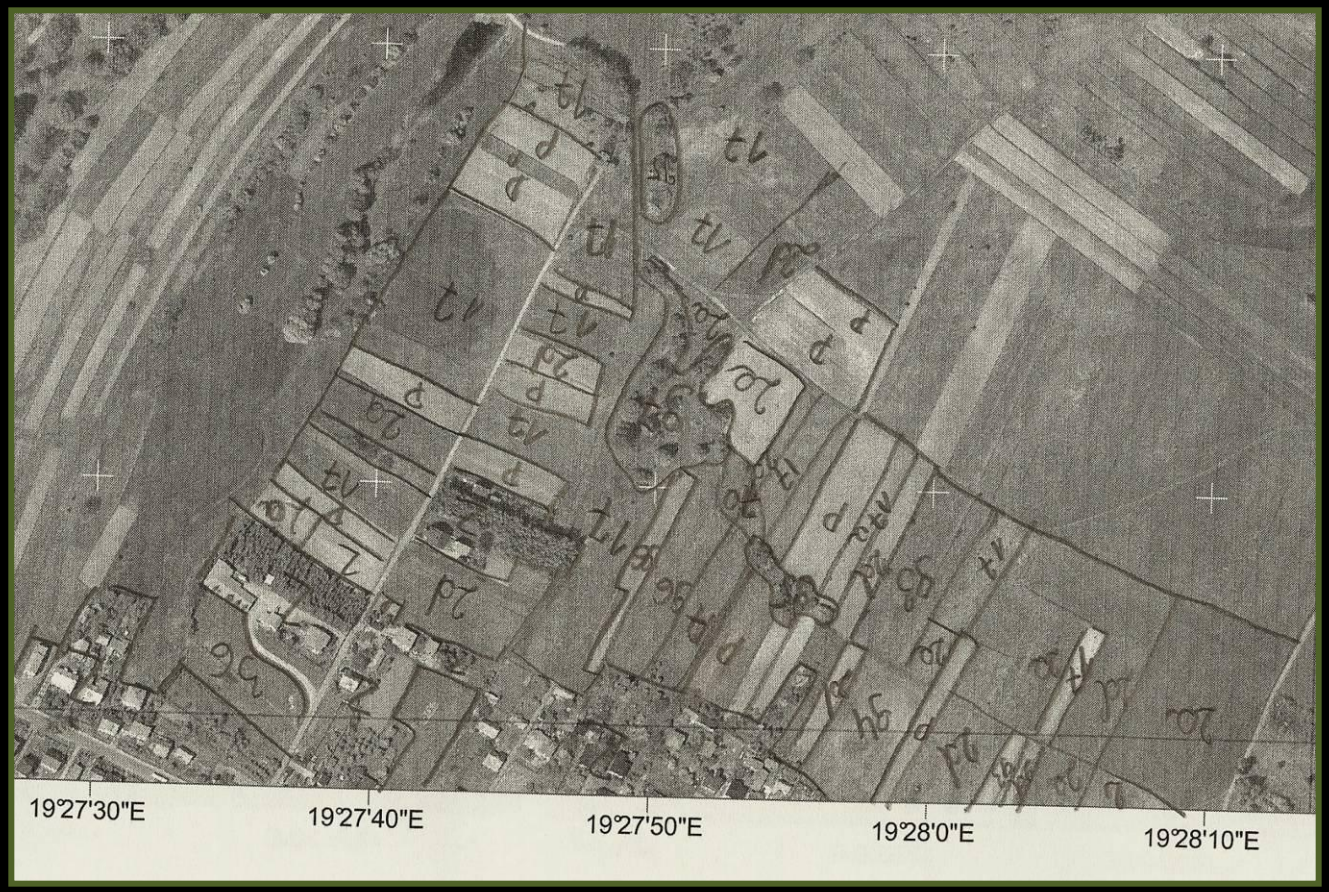
Vegetation of calamine soils and its importance for biodiversity and landscape conservation in post-mining areas

Field research



Vegetation of calamine soils and its importance for biodiversity and landscape conservation in post-mining areas

Mapping




ArcGIS 9
psammophilous grasslands
34
50
99
77
77
117

Non-forest communities

Tall herb humid meadows (*Molinion, Calthion*) and fresh meadows (*Arrhenatherion*) - mowed and abandoned

Rushes

Rich and poor fens

Thermophilous thickets

Termophilous grasslands

Psammophilous communities

Communities of fallows

Ruderal and nitrophilous fringe communities

Class: *Molinio-Arrhenatheretea* –semi-natural tall-herb humid meadows, fresh meadows, tall herb communities

Dominants: *Angelica sylvestris, Cirsium oleraceum, Juncus conglomeratus, Cirsium palustre, Juncus effusus, Veronica offficinalis*

Dominants: *Arrhenatherum elatius, Rumex acetosa, Knautia arvensis, Dactylis glomerata*

Tall herb humid meadows

Dominants: *Cirsium rivulare, Deschampsia caespitosa, Selinum carvifolia, Lathyrus pratensis, Sanguisorba officinalis, Geum rivale*

Dominants: *Deschampsia caespitosa, Cirsum palustre, Juncus conglomeratus, Angelica sylvestris, Lysimachia vulgaris, Agrostis capillaris*

Dominants: *Molinia caerulea, Plantago lanceolata, Achillea millefolium, Filipendula ulmaria, Galium mollugo*

Class: *Phragmitetea* - rushes

Reed-mace rushes

Reed rushes

Class: *Scheuchzerio-Caricetea nigrae*

Dominants: *Carex fusca, Valeriana simplicifolia, Parnassia palustris, Comarum palustre, Cirsium palustre, Hypericum tetrapterum,*

Class: *Festuco-Brometea*
Thermophilous grasslands

Occurrence:

hills, old excavations

Dominants: *Brachypodium pinnatum, Geranium sanguineum, Galium boreale, Euphorbia cyparissias, Anthericum ramosum*

Dominants*: Festuca ovina, Gypsophila fastigiata, Silene vulgaris, Galium album, Anthylis vulneraria, Thymus pulegioides*

Class: *Rhamno-Prunetea* thermophilous tickests

Occurrence: among fields, fallows, on calcareous hills near xerothermic grasslands

Dominants:

Prunus spinosa,
Cornus sanguinea, Corylus avellana,
Crataegus sp. Coryllus avellana,
Euonymus europaea

Class: *Koelerio-Corynephoretea* psammophilous communities

Dominants: *Armeria elongata, Plantago lanceolata, Phleum phleoides, Trifolium arvense, Festuca rubra, Jasione montana*

Dominants: *Corynephorus canescens, Herniarnia glabra, Dianthus deltoides, Anthylis vulneraria*)

Class: *Agropyretea intermedio-repentis* – communities of fallows

Dominants: *Leontodon hispidus, Carex hirta, Dactylis glomerata, Plantago laceolata*

D: *Leontodon hispidus*

D: *Calamagrostis epigejos*

D: *Elymus repens*

Convolvulo-Agropyretum
(dominant *Solidago canadensis*)

Dominants: *Picris hieracioides, Daucus carota, Tussilago farfara, Artemisia vulgaris, Senecio jacobaea*

Class: *Stellarietea mediae*

Dominants: *Galinsoga ciliata,Veronica persica, Euphorbia cyparissias, Centaurea cyanus, Sinapis arvensis*

Class: *Artemisietea* ruderal communities

Dominants: *Solidago canadensis, Urtica dioica, Eupatorium cannabinum, Reynoutria japonica, Epilobium hirsutum, Aster sp.*

Dominants: *Tussilago farfara, Erigeron annuus, Conyza canadensis, Sonchus oleraceus*


Thank you for attention