

# **„Habitats, their anthropogenic changes and their influence on wetland ecosystems conditions.”**

Mateusz Stelmaszczyk

Warsaw Agricultural University  
Faculty of Engineering and  
Environmental Science

Mohssine El-Kahloun

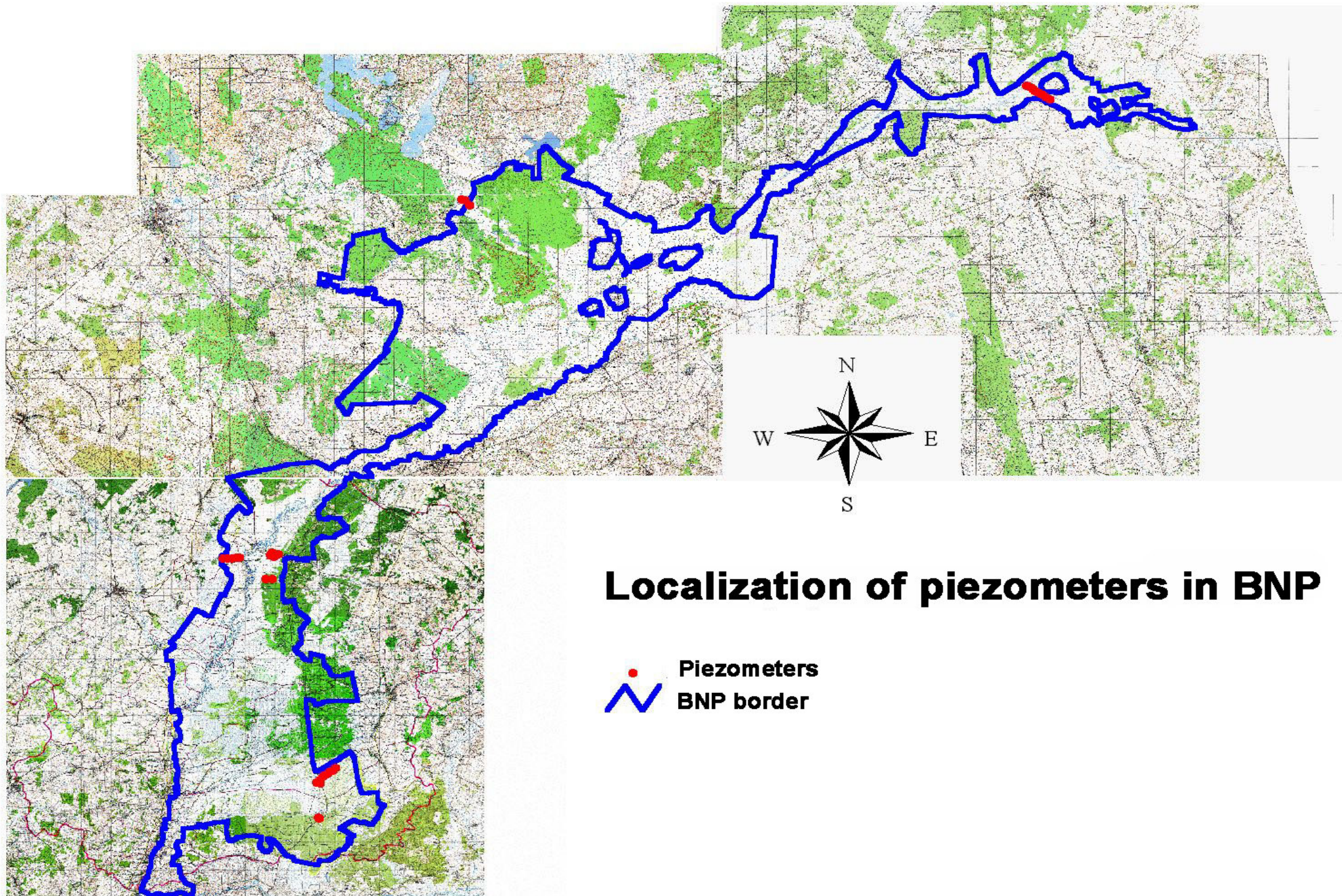
University of Antwerp  
Department of Biology

# Outline

1. Transects localization
2. Kuligi transect
  - Hydrological conditions
  - Vegetation diversity
  - Anthropogenic impact
    - a) Influence of mowing
3. Mścichy transect
  - Hydrological conditions
  - Vegetation diversity
  - Anthropogenic impact
    - a) Influence of grazing
    - b) Road as a barrier for water

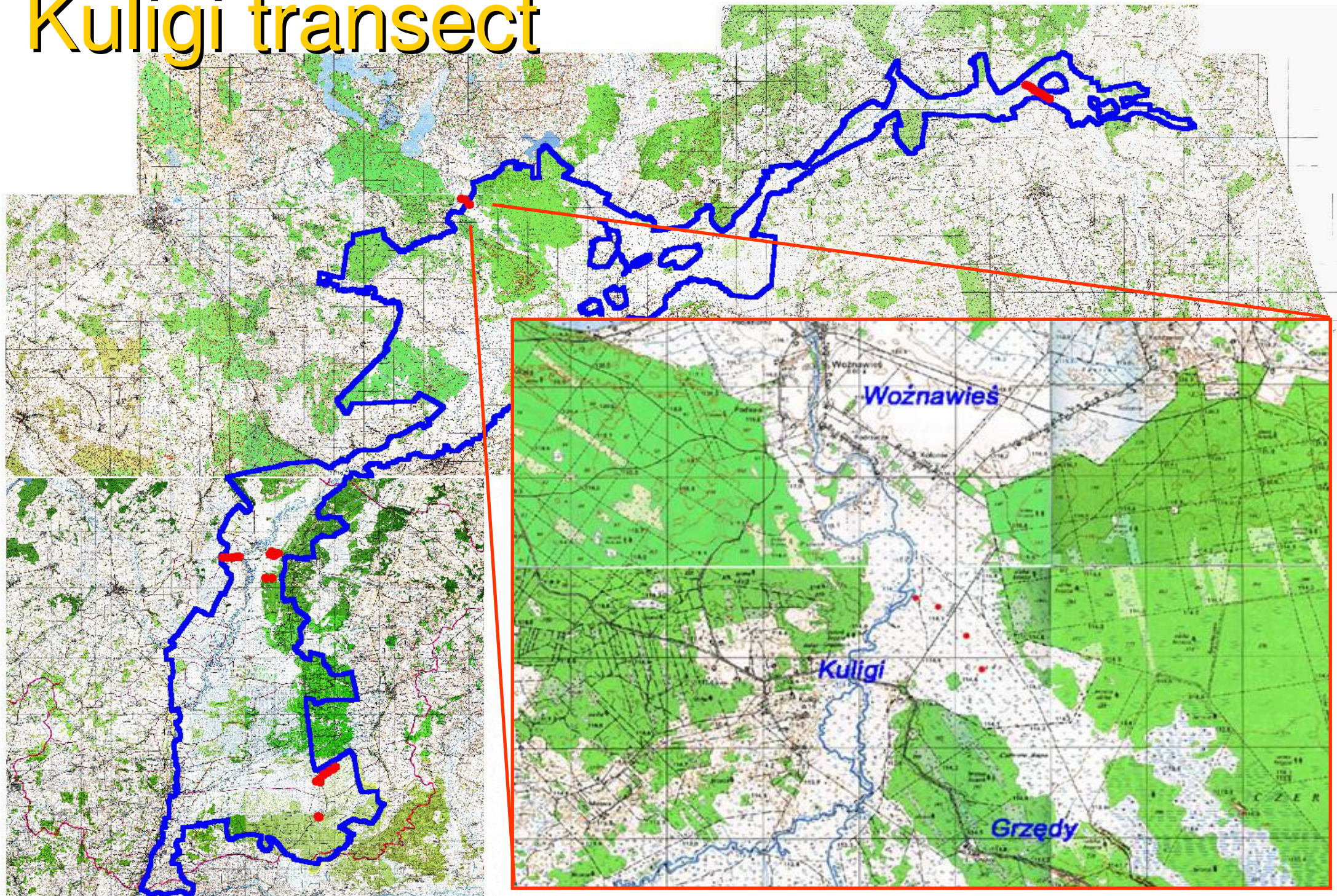






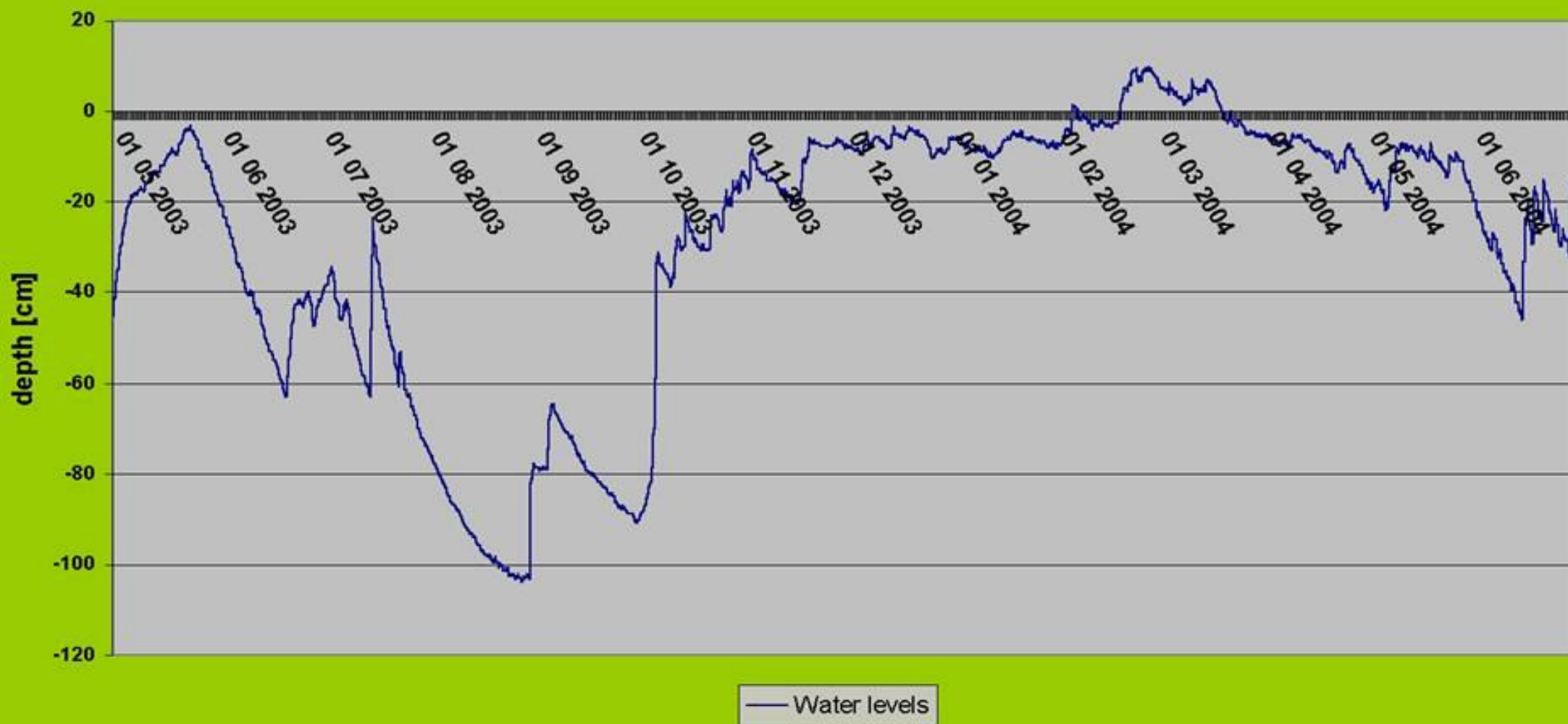


# Kuligi transect





Kuligi [KUL2D]  
30.04.2003 - 29.06.2004



Molinion meadow





- Mowing changes biodiversity, domination of species, amounts of biomass and litter and ratio between them.



Not mowed area



Mowed and not mowed areas

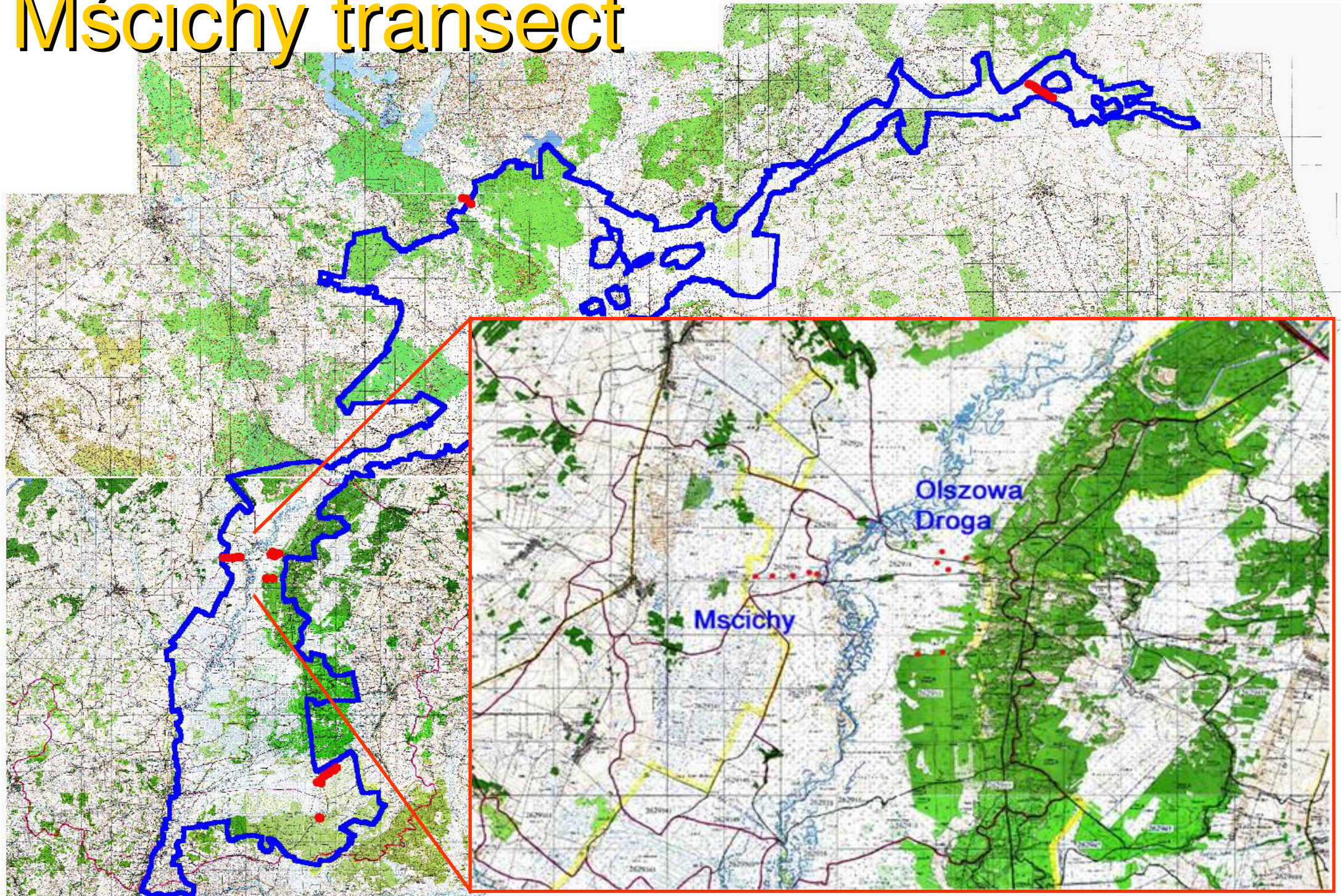
	Biomass [g/m <sup>2</sup> ]	Litter [g/m <sup>2</sup> ]
Mowed areas	c.a. 200	50-150
Not mowed areas	rather the same like in mowed areas	600 - 750

# Species richness in Kuligi transect

Piezometer ID	Number of species	Molinio-Arrhenatheretea species	Phragmitetea species	Scheuchzerio-Caricetea species	Other species
KUL1	27	20	3	4	-
KUL2D	24	11	5	4	4
KUL3	17	9	4	-	4
KUL4	14	6	2	1	5
Not mowed part	21	8	5	3	5

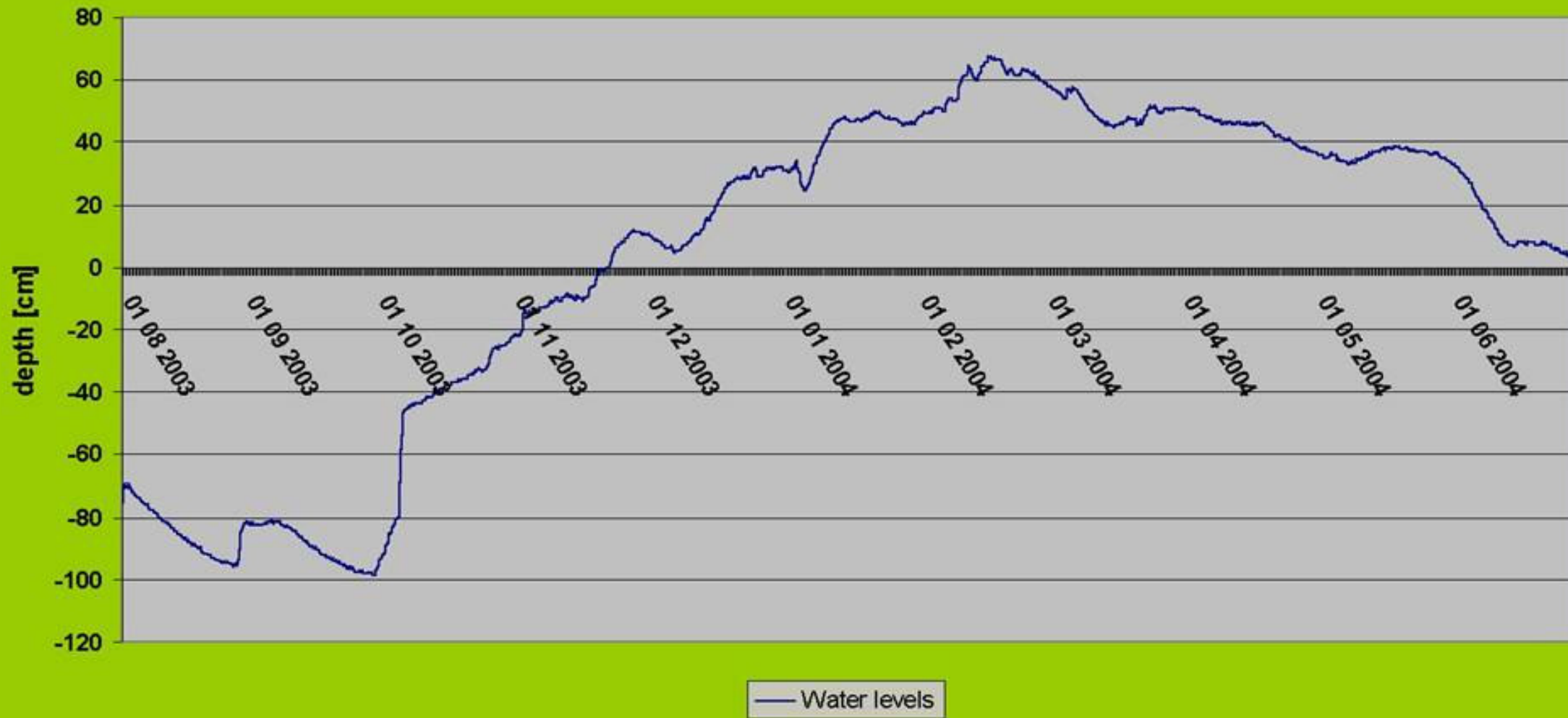


# Mścichy transect





**Mścichy [MS3D]**  
**04.08.2003 - 28.06.2004**





*Magnocaricion*





# Influence of grazing

- Grazing – promotion of structural diversity of species being able to maintain without sowing.
- Treading – important for forming areas of regeneration, especially in spring and summer, too intensive is very dangerous - may destroy vegetation.
- Excrements – diffused excrements bring out species and structural diversity
- Desistance from grazing – leads to domination of less valuable species and possible losing of habitats due to development of shrubs.





- Influence of grazing by cattle – limits rank vegetation and domination of expansive species.



*Caricetum elatae* grazed by caws



- Two factors are responsible for differences in plant communities cover on two sides of the road:
  - Road – a barrier for water flow (especially during low and average stages).
  - Ditch on the north side of a road – barrier for cows, they choose food which is easier to get - on the south side of the road.



Ditch on the north side



North side



South side



DZIEKUJE

