

# Concentration of the European otter (*Lutra lutra*) and its habitat preferences in the area of Jelenia Góra valley

Anna Kosmowska

Uniwersytet Wrocławski

21.03.2013

Project: Influence of breeding ponds on the recolonisation of Karkonosze mountains by the European otter (*Lutra lutra*)

Presentation: Concentration of the European otter (*Lutra lutra*) and its habitat preferences in the area of Jelenia Góra valley

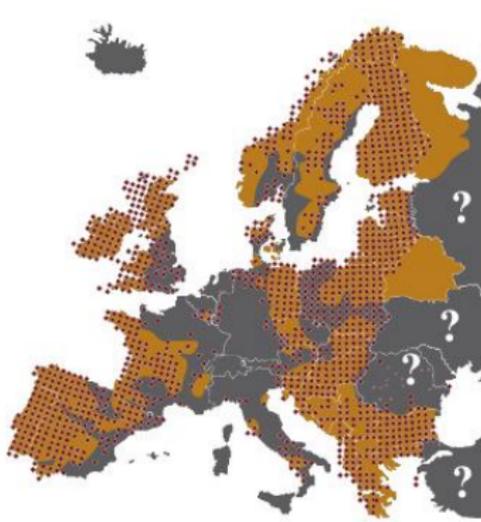
## European otter

- mammal from the weasel family
- inhabiting rivers, lakes and ponds
- food: mainly fish and amphibians



## Concentration in Europe

- XX century: extinction in many countries in Europe
- in Poland very rare
- causes: toxins and pollution, destruction of natural habitats, hunting



: Fig. by Tomasz Zajac

## Concentration in Poland

- in 90s: recolonisation in Poland
- white spots: central Poland, Silesia and Sudety mountains
- gradual range increase



: Brzezinski M., et al., *Otter Lutra lutra distribution in Poland*, Acta Ther. 1996

## Current concentration in Jelenia Góra valley

### Survey methods

- searching trails along rivers



spraint (otter's excrements)



spraint



trails

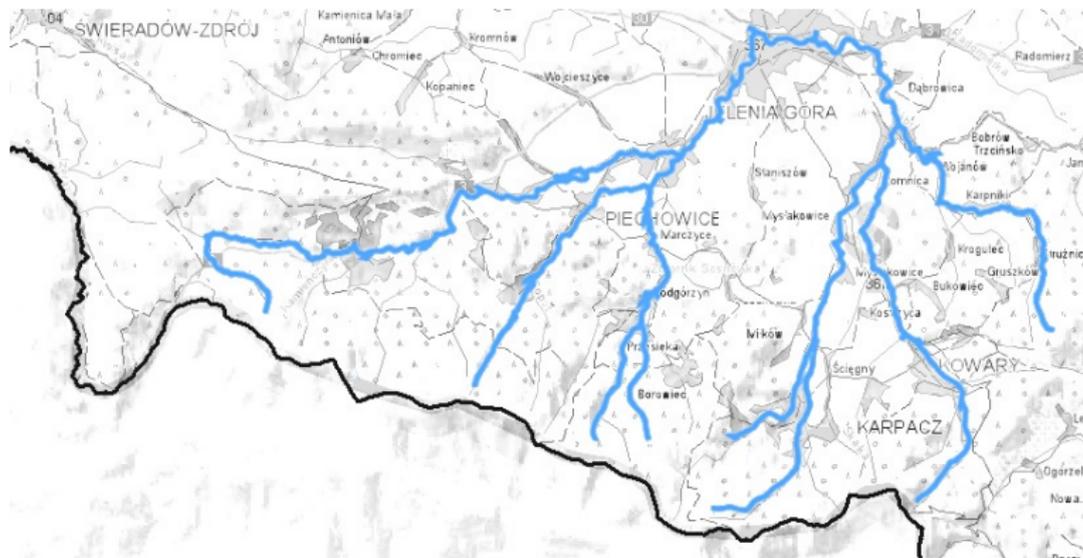
## Survey methods

- searching trails
- marking trails and habitat features
  - river-bank (natural / regulated)
  - degree of river regulation
  - amount of potential shelters
  - amount of potential sprainting places

## Study area

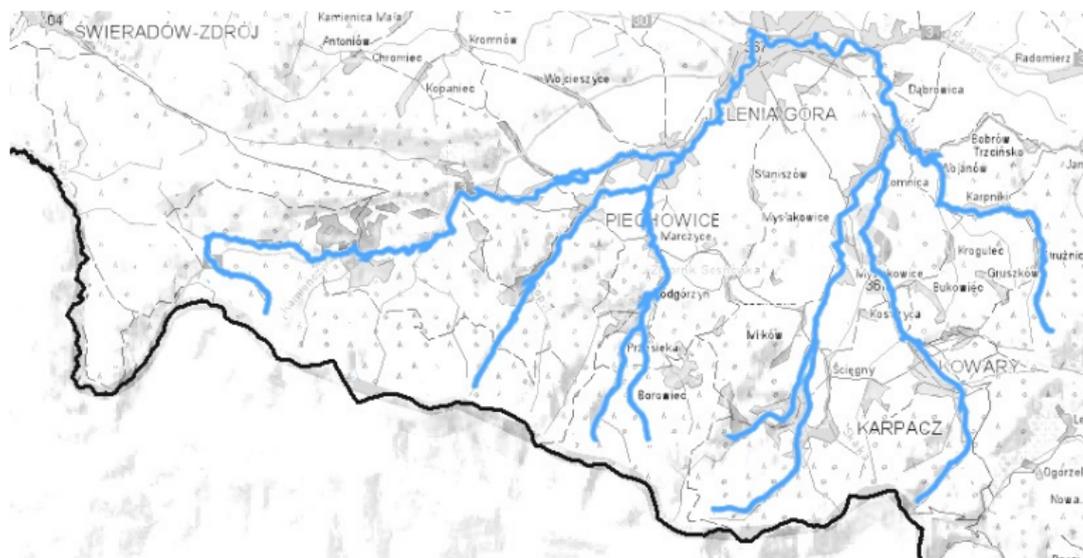
Main rivers in Jelenia Góra valley:

- Kamienna, Wrzosówka, Podgórna, Łomnica, Łomniczka, Jedlica, Karpnicki Potok



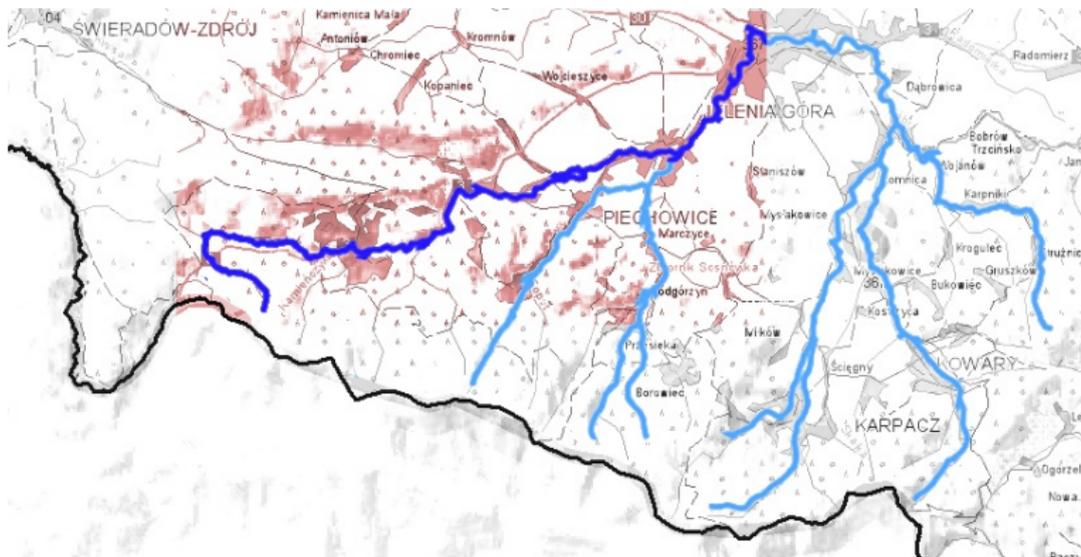
## Propositions: concentration

- Otters inhabit all main rivers in Jelenia Góra valley, except high mountain area.



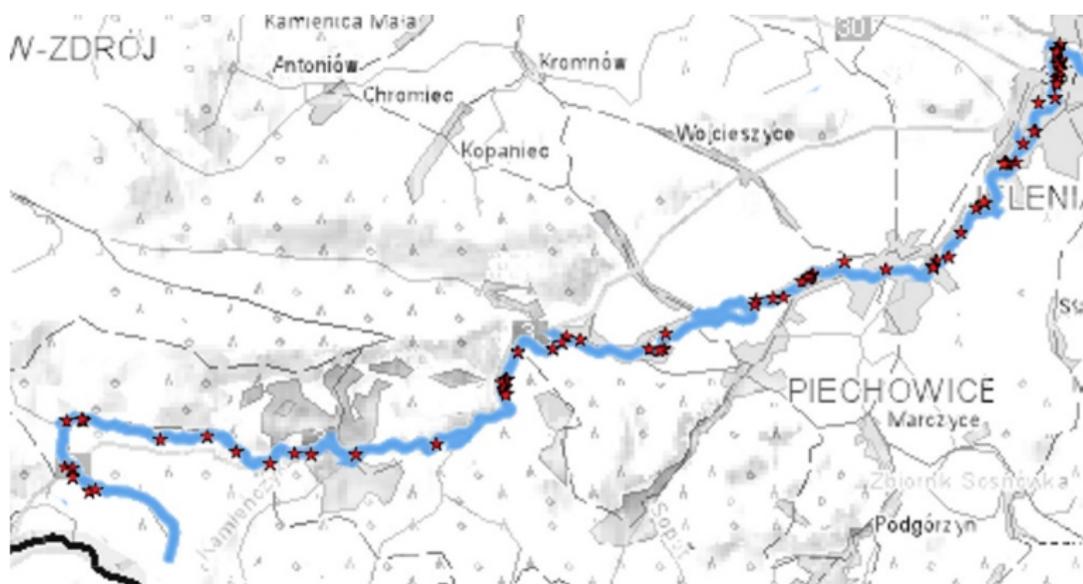
## Propositions: concentration

- Kamienna



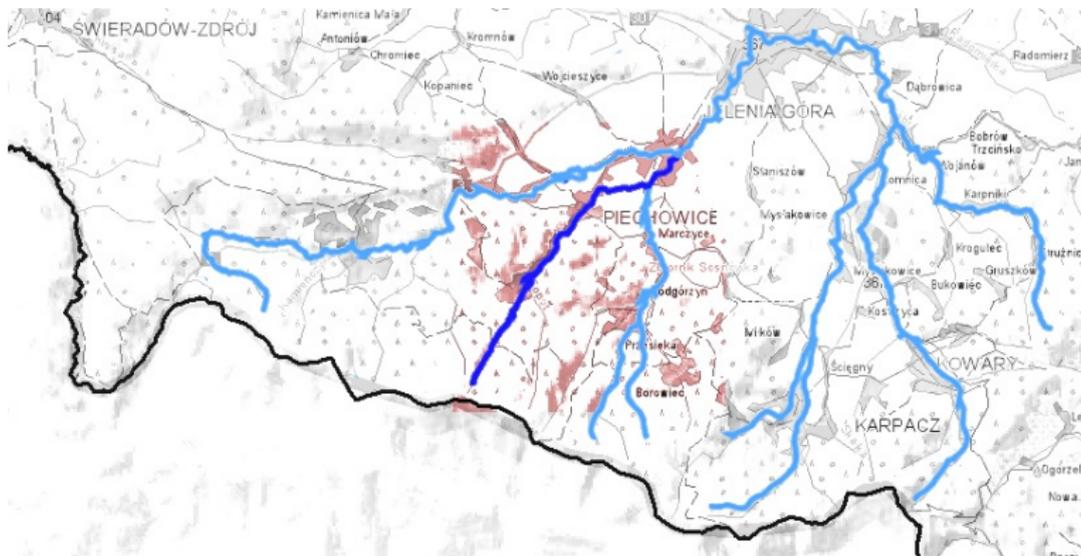
## Propositions: concentration

- Kamienna



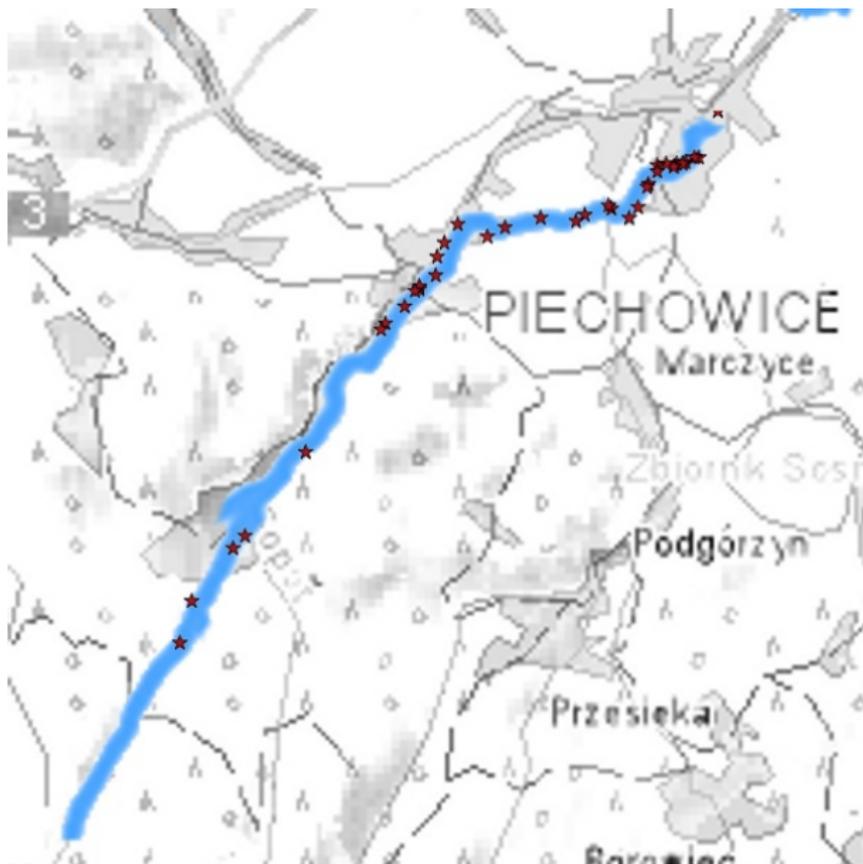
## Propositions: concentration

- Wrzosówka



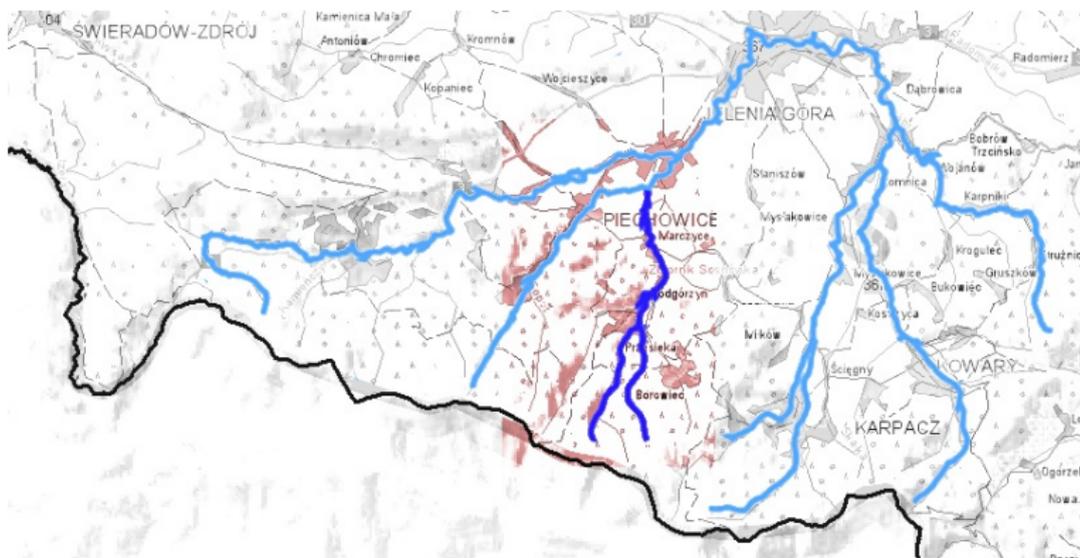
## Propositions: concentration

- Wrzosówka



## Propositions: concentration

- Podgórna



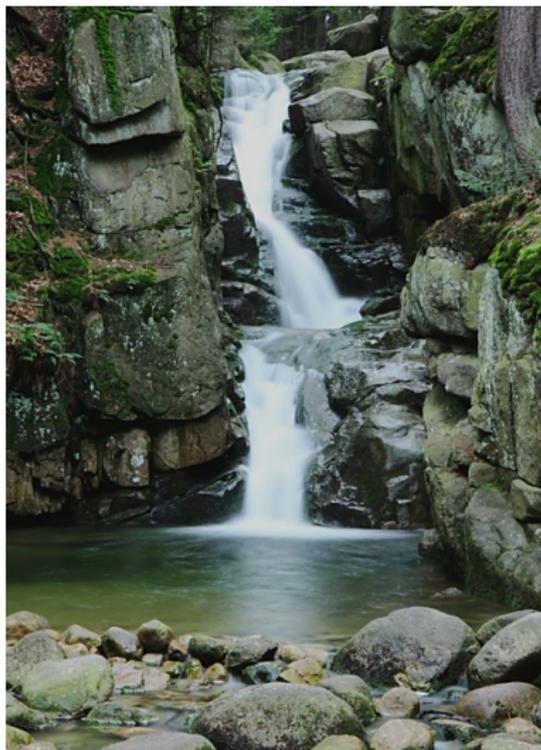
## Propositions: concentration

- Podgórna



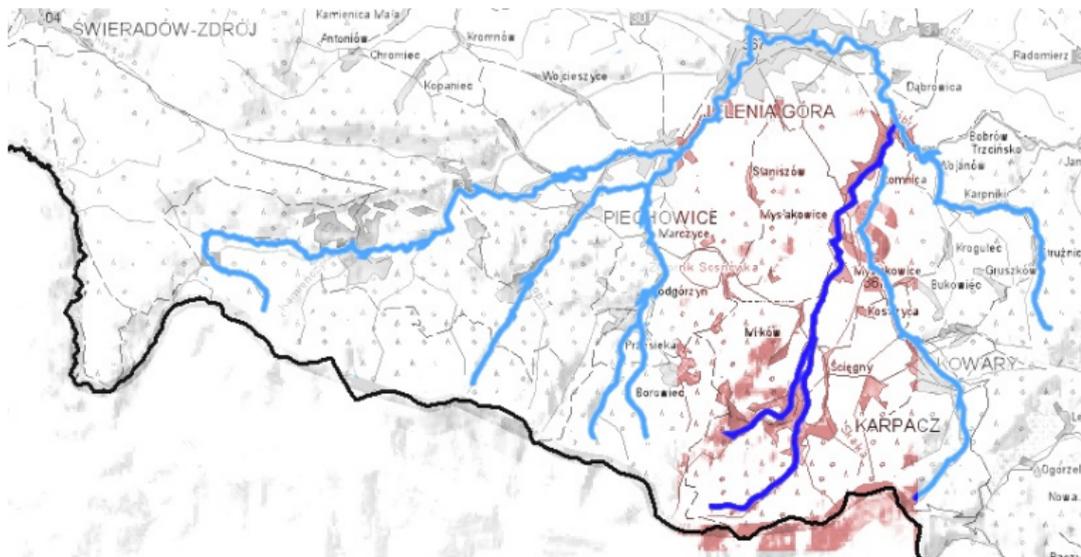
## Propositions: concentration

- Podgórna



## Propositions: concentration

- Łomnica and Łomniczka



## Propositions: concentration

- Łomnica and Łomniczka



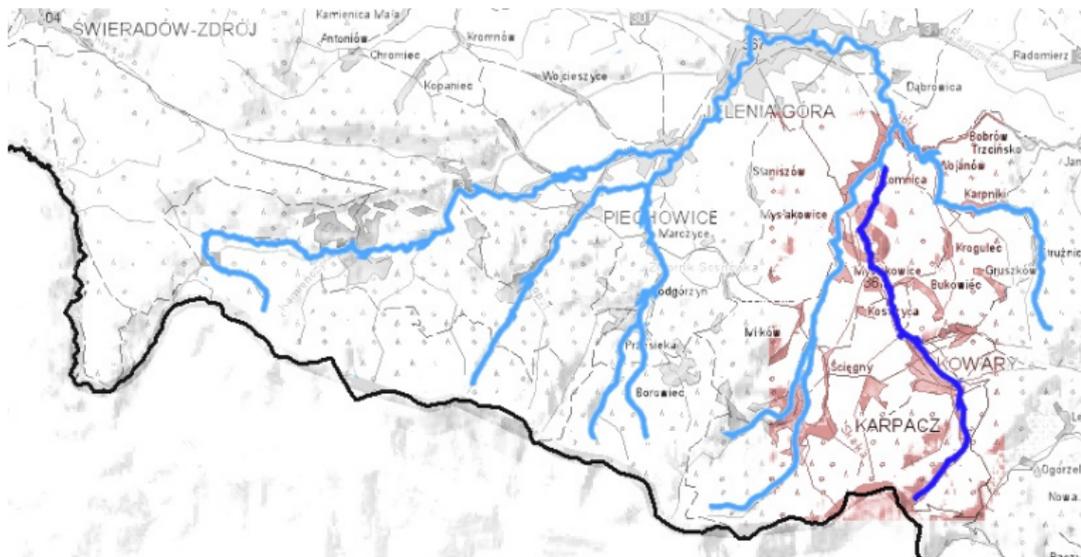
## Propositions: concentration

- Łomnica and Łomniczka



## Propositions: concentration

- Jedlica



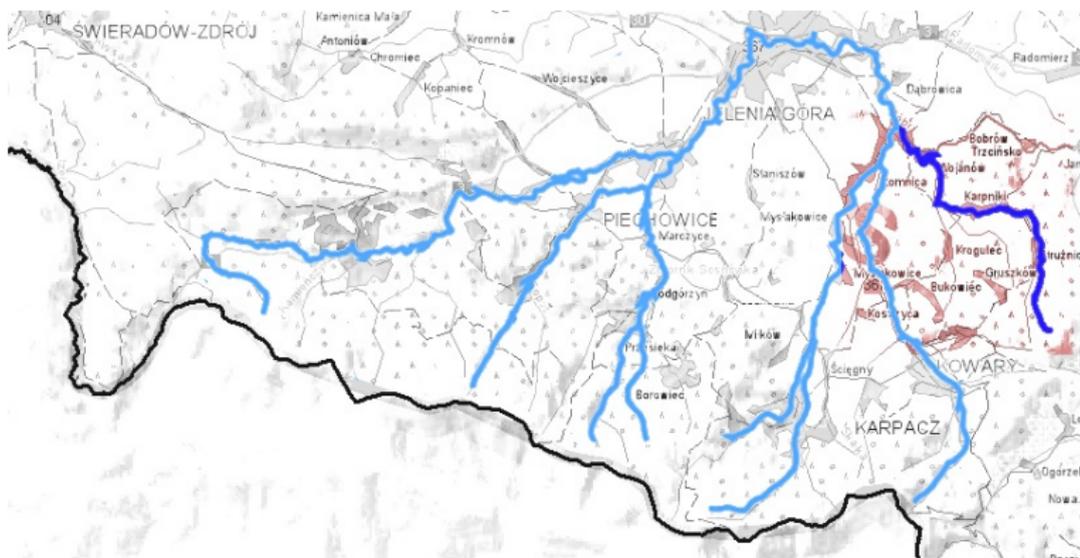
## Propositions: concentration

- Jedlica



## Propositions: concentration

- Karpnicki Potok



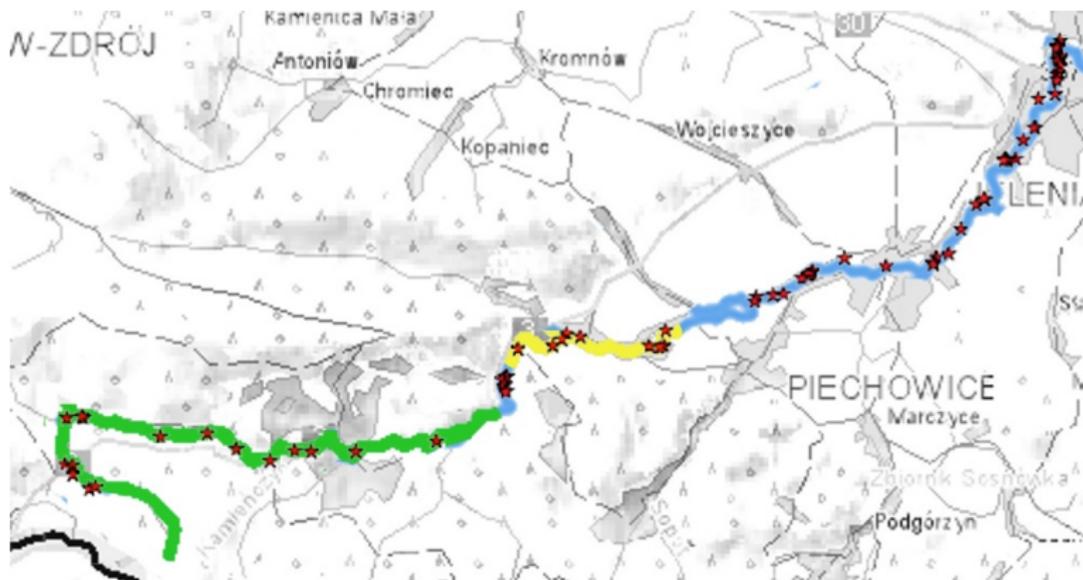
## Propositions: concentration

- Karpnicki Potok



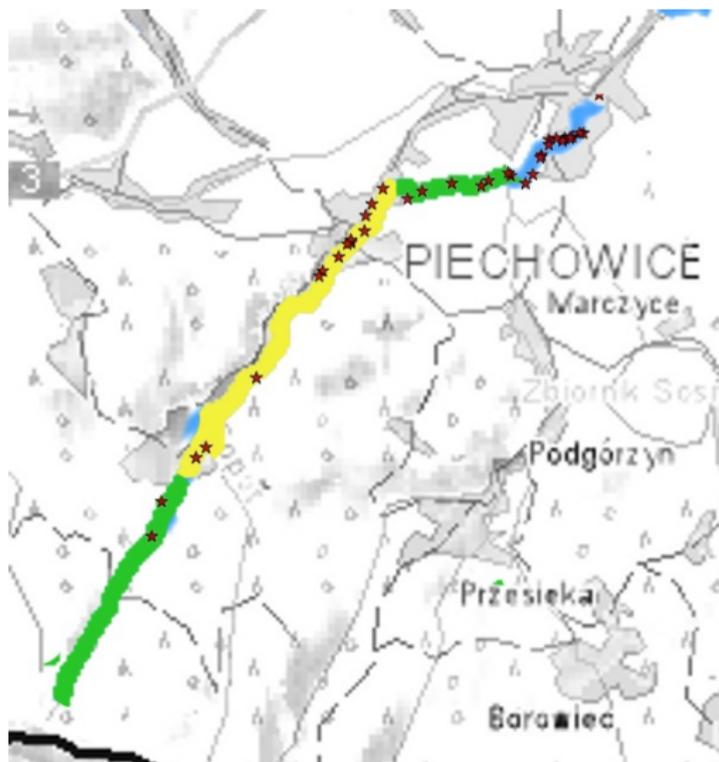
Which features of habitat do influence the otter concentration?  
Habitat selection: degree of river regulation

- Kamienna



## Habitat selection: degree of river regulation

- Wrzosówka



## Habitat selection: degree of river regulation

- Podgórna



## Habitat selection: degree of river regulation

- Łomnica and Łomniczka



## Habitat selection: degree of river regulation

- Jedlica



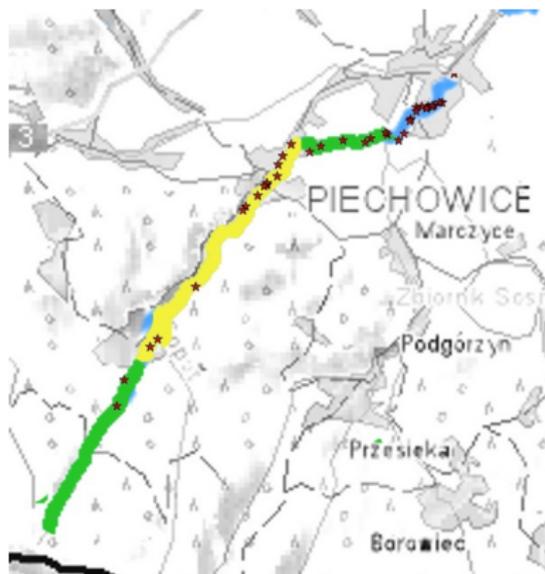
## Habitat selection: degree of river regulation

- Karpnicki Potok



It seems that the degree of river regulation does not influence the concentration of otter.

## Habitat selection: amount of potential shelters

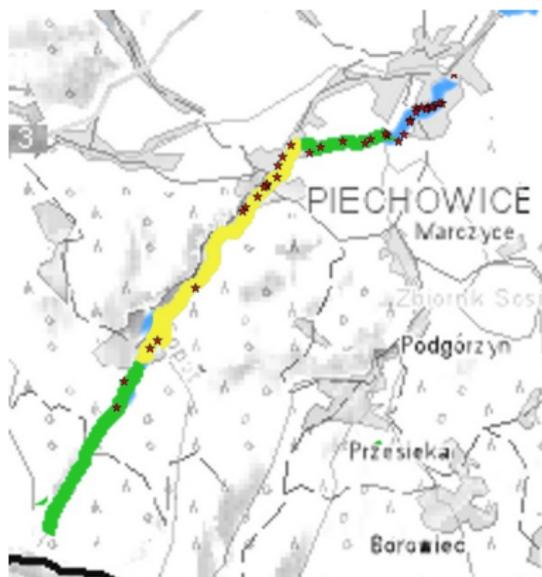
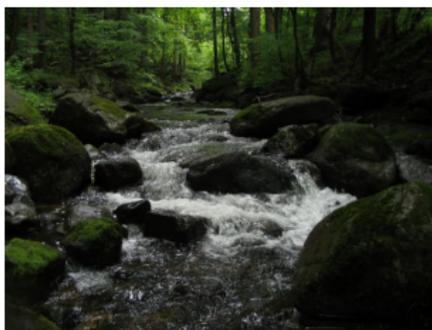


Wrzosówka



Jedlica

## Habitat selection: degree of river pollution



Wrzosówka

## Summary

- European otter inhabits all main rivers in Jelenia Góra valley
- The degree of river regulation, pollution and the amount of potential shelters seems not to influence the otter concentration.
- A factor which plays a major role is food availability.
- This causes the lack of otter in the high mountain area.



Photo: A. Tabor