

**BDEE
2021**

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on Biological Diversity, Ecology and Evolution**
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Urban wildlife and people: opinion and challenges of living together

Sayantani M. Basak ^{1*}, Izabela Wierzbowska¹, Magdalena Hedrzak² and Elzbieta Widera¹

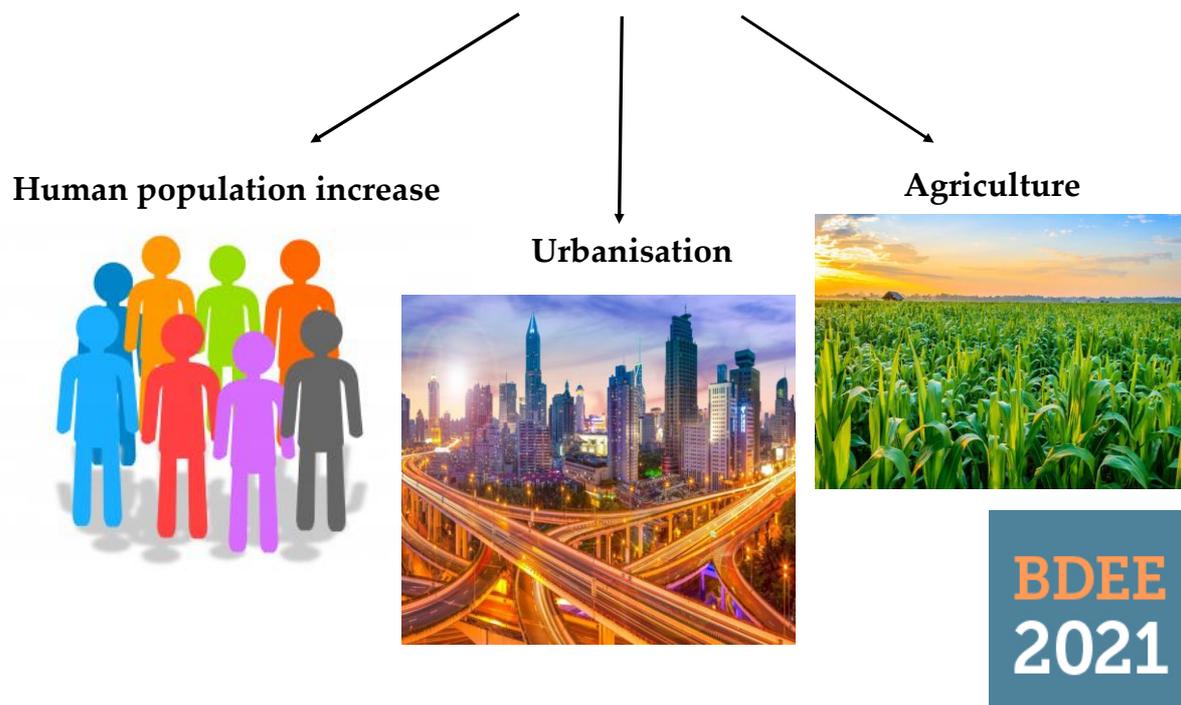
¹ Institute of Environmental Sciences, Faculty of Biology, Jagiellonian University,
Gronostajowa 7, 30-387 Krakow, Poland

² Green Pro Laboratory, Maszyce 13, 32-077 Smardzowice

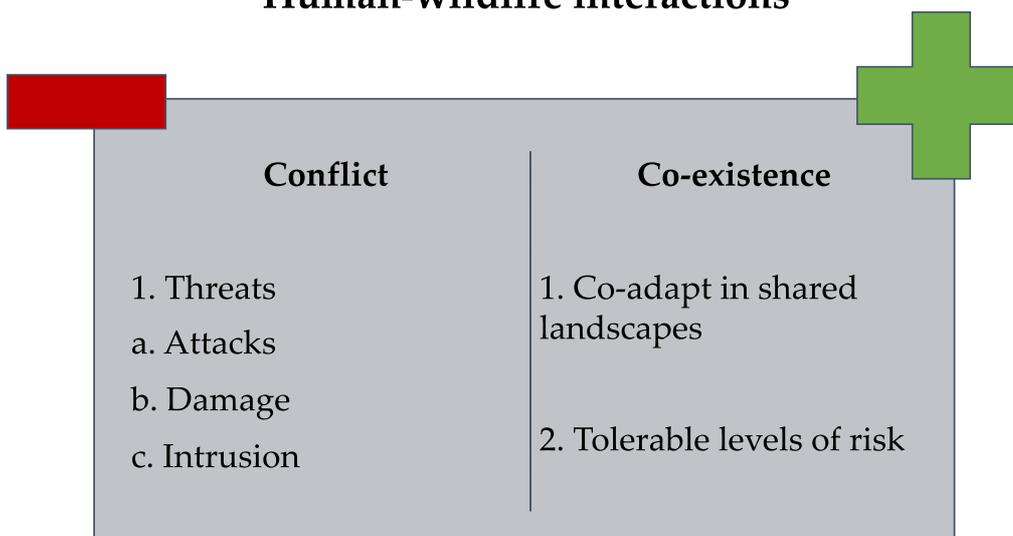
* Corresponding author: sayantani.basak@doctoral.uj.edu.pl

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Why study human-wildlife interactions?



Human-wildlife interactions



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Why study human-wildlife interactions in urban areas?

- It is estimated by 2050 that nearly 68% of the world's population would reside in urban areas, an increase of 13% since 2018
- Wildlife in urban areas is exposed to novel environmental pressures including high vehicular and pedestrian traffic, chemical, acoustic, and light pollution
- Animals in urban areas have conflicts with people – including zoonotic risks, damage to structures or goods, traffic accidents, direct attacks to humans or domestic animals



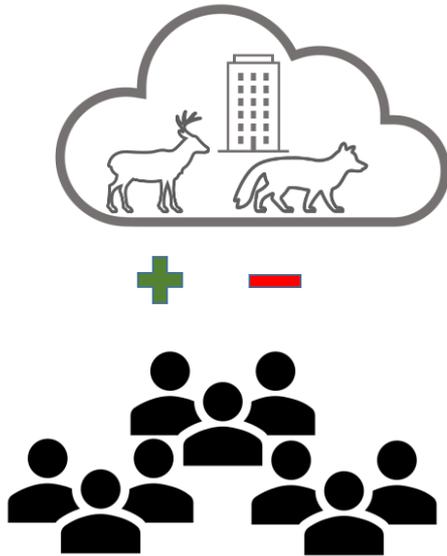
Source: <https://eco-intelligent.com/2016/10/04/it-is-as-much-their-home-as-it-is-ours/>

Source: <https://notesfrompoland.com/2020/07/02/they-no-longer-just-migrate-they-live-here-now-polish-city-deals-with-booming-boar-numbers/>

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Introduction

The first step towards managing conflicts and promoting co-existence is by understanding people's perception and degree of tolerance for wildlife (Trevies and Bruskotter, 2014).

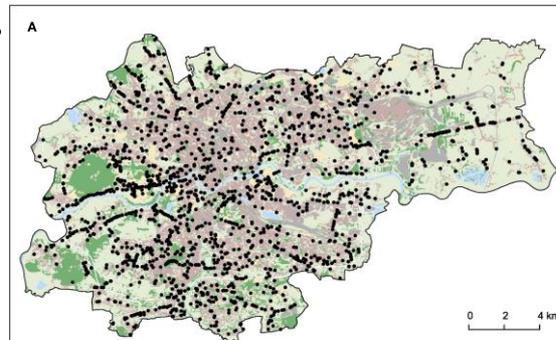


With rising urbanisation, researchers have to take advantage of growing number of urban residents' to engage the public in the process of ecological research with public-policy implications

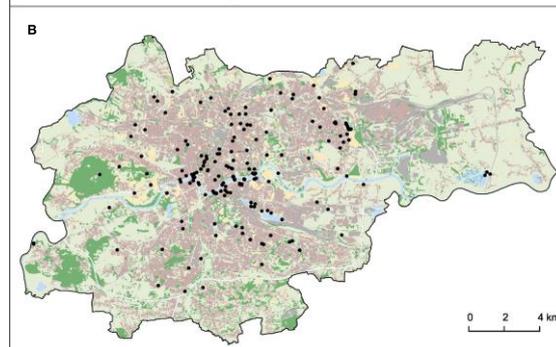
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Why did we study people's perception about wildlife?

Mammals



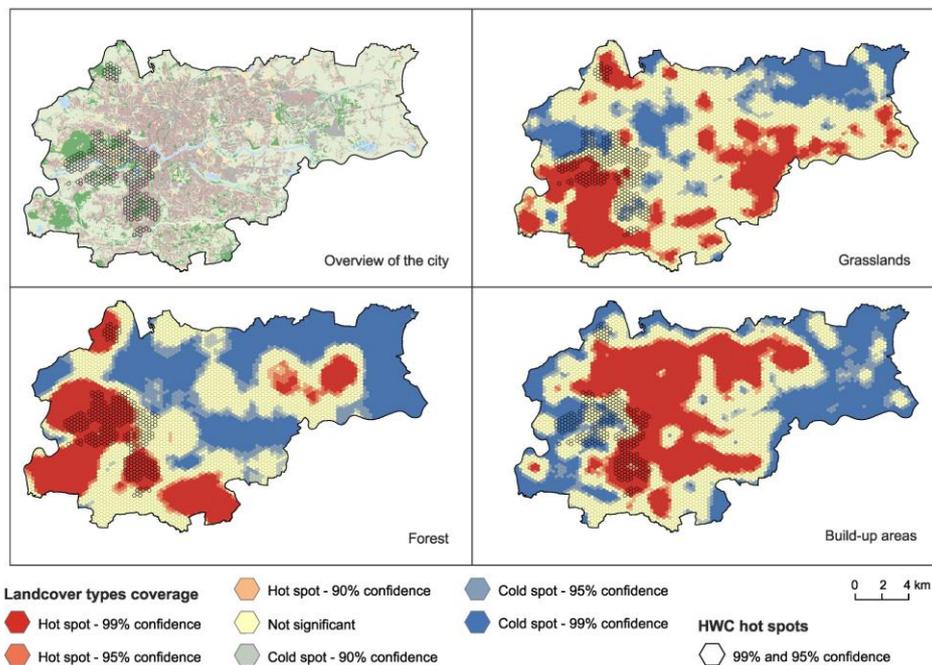
Birds



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Why did we study people's perception about wildlife?

Wild boar *Sus scrofa*



Source: Basak et al., Human–Wildlife Conflicts in Krakow City, Southern Poland. *Animals* 2020, 10, 1014. <https://doi.org/10.3390/ani10061014>

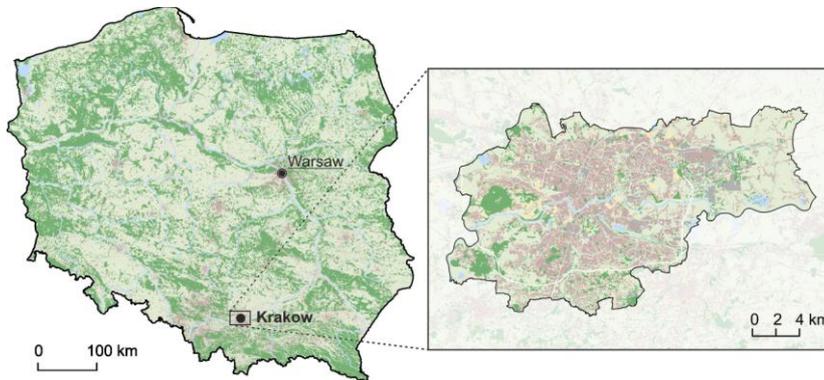
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Aims of the research

- (1) Understand the relationship between observed wild animals in the city and their behaviour
- (2) Identify types and nature of conflicts with wildlife
- (3) Investigate people's attitudes towards residing with wildlife and resolving conflict situations

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Study area



The study was conducted in Krakow, the second largest city in Poland

Source: Basak et al., Human–Wildlife Conflicts in Krakow City, Southern Poland. *Animals* 2020, 10, 1014. <https://doi.org/10.3390/ani10061014>

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Preparatory stage

Questionnaire design

Part I: Socio-demographic information (e.g., age, gender, education) and observation of wild animals in the city

For example: we enquired whether they had an encounter with wild animals in the city in the last year; we asked to identify and mention those animals

Part II: Identification of conflict situation with wild animals in the city.

For example: what kind of wild animals were observed and the type of conflict

Part III: Understand the opinion of respondents' attitudes towards residing with wildlife in the city.

For example: if "wild animal is a potential source of danger to people", or if "an injured or sick wild animal should be helped and taken home"

Data collection



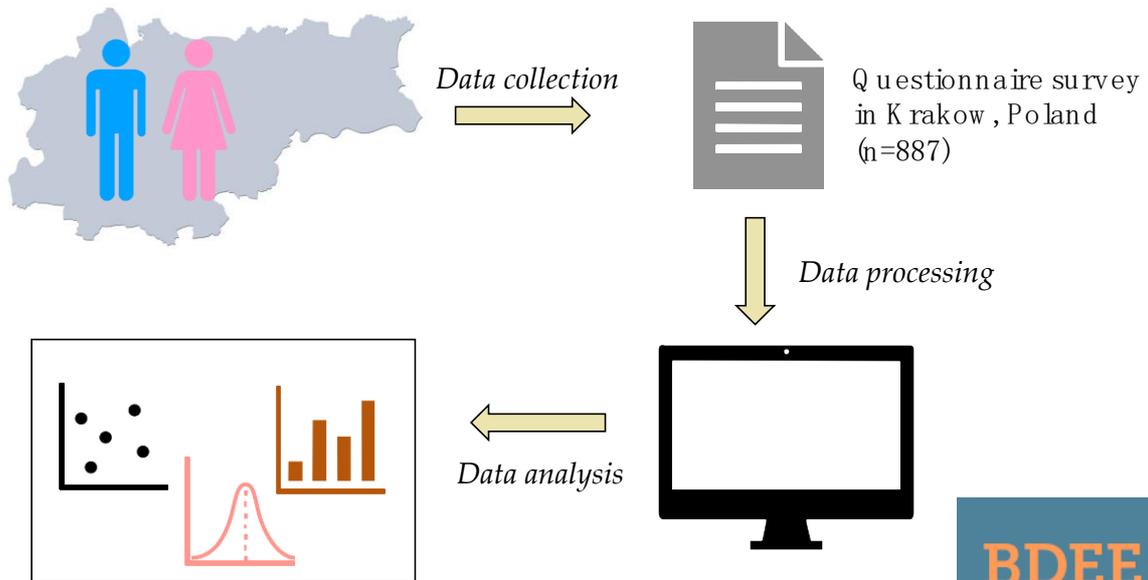
— District boundaries

- Questionnaire collected from 18 districts of Krakow from primary schools
- Questionnaire return : 37.16%



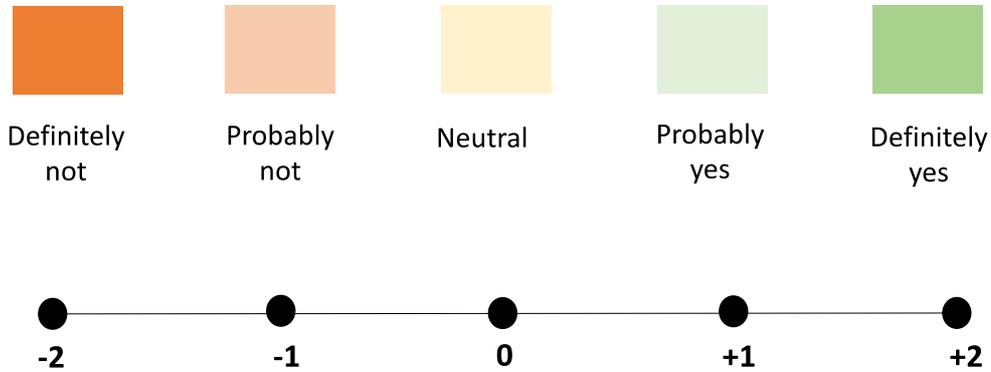
Source: <https://www.poczetkrakow.skep.lm.aleo.jzyzny/iii-aktualne-dzieelnice-samorzadowe-krakowa/>

Methodology

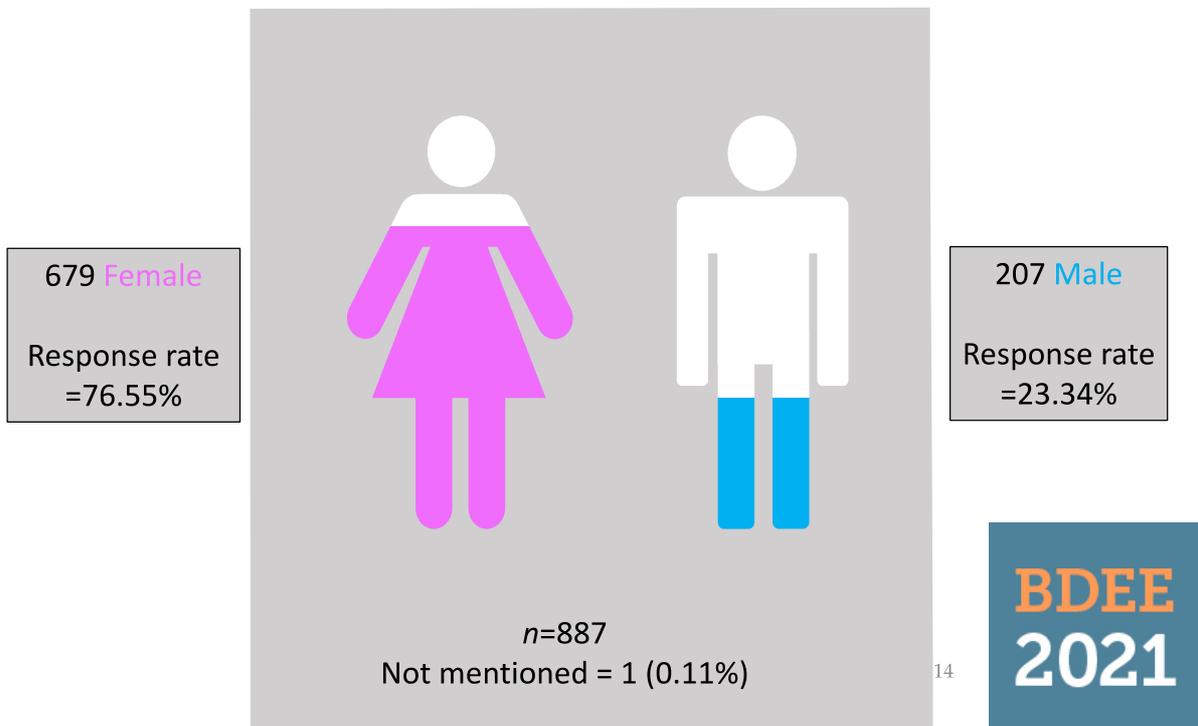


Methodology

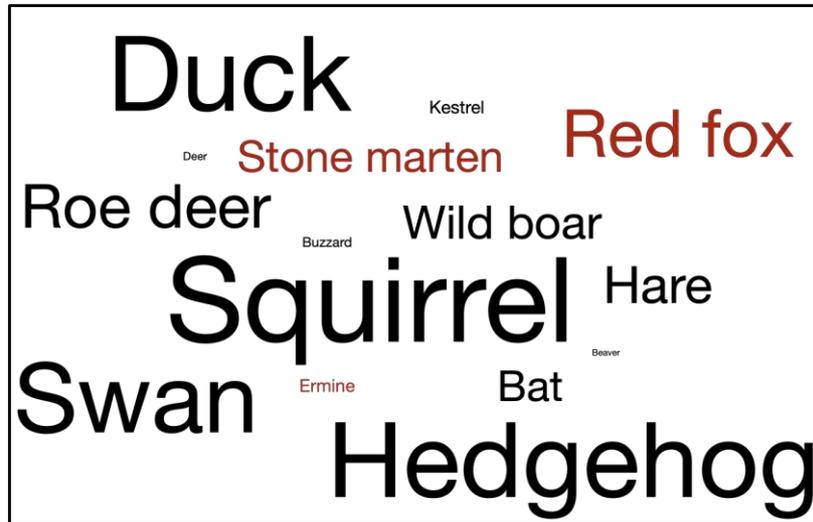
Likert Scale: A psychometric scale to represent people's attitudes to a topic



Results



Results

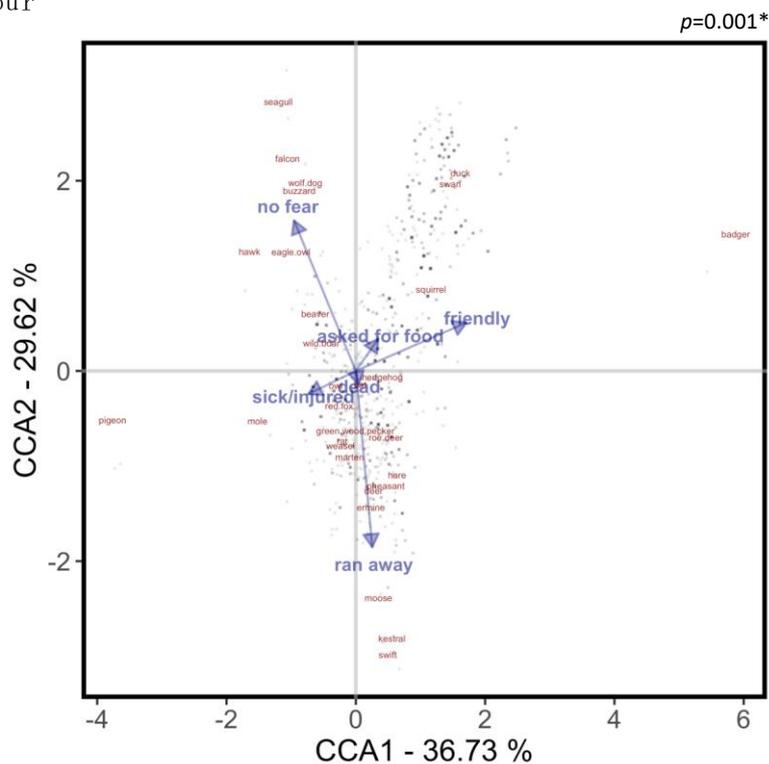


Word cloud represents the animals observed in the city. The size of the names represents the frequency of the observed animals. The animals marked in red colour show the Carnivora species in the city

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Results

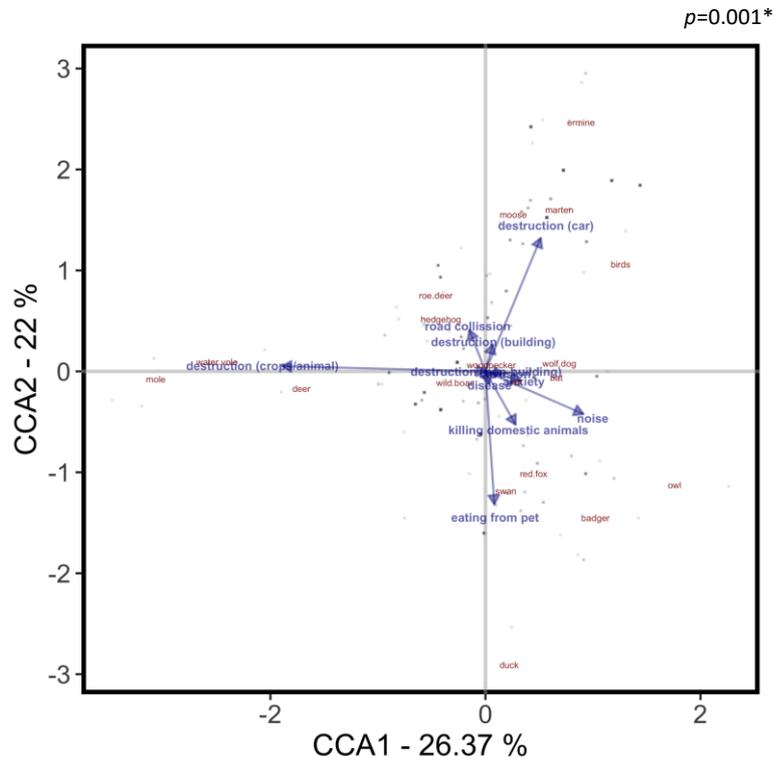
To understand the relationship between observed wild animals in the city and their behaviour



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Results

To identify types and nature of conflicts with wildlife

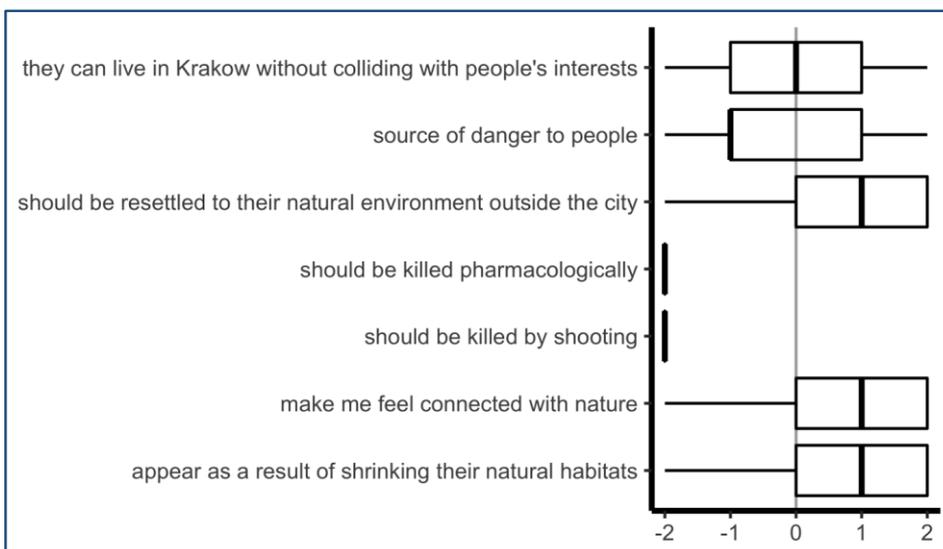


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Results

To investigate people's attitudes towards residing with wildlife and resolving conflict situations

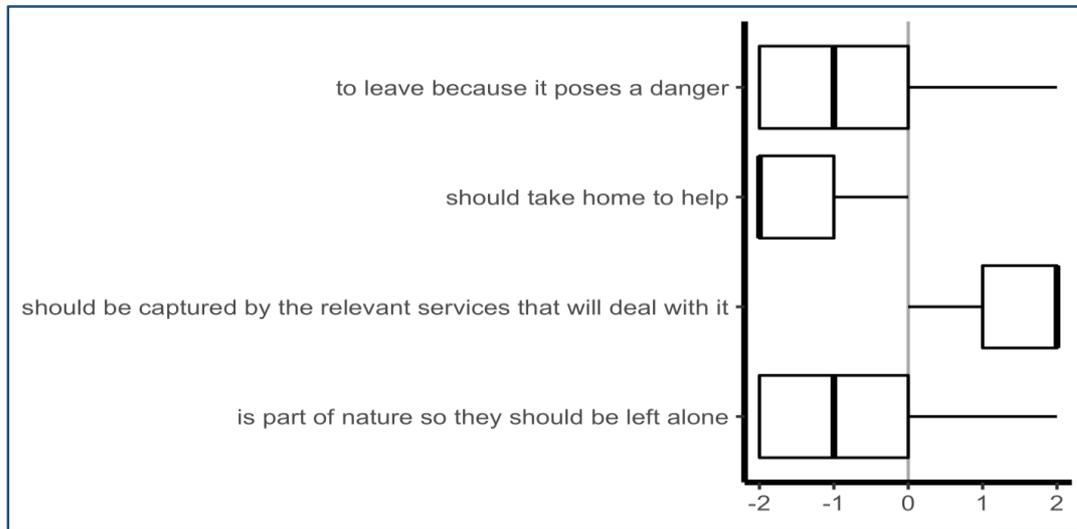
Q 1. What do you think about the presence of wildlife in the city of Krakow ?



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Results

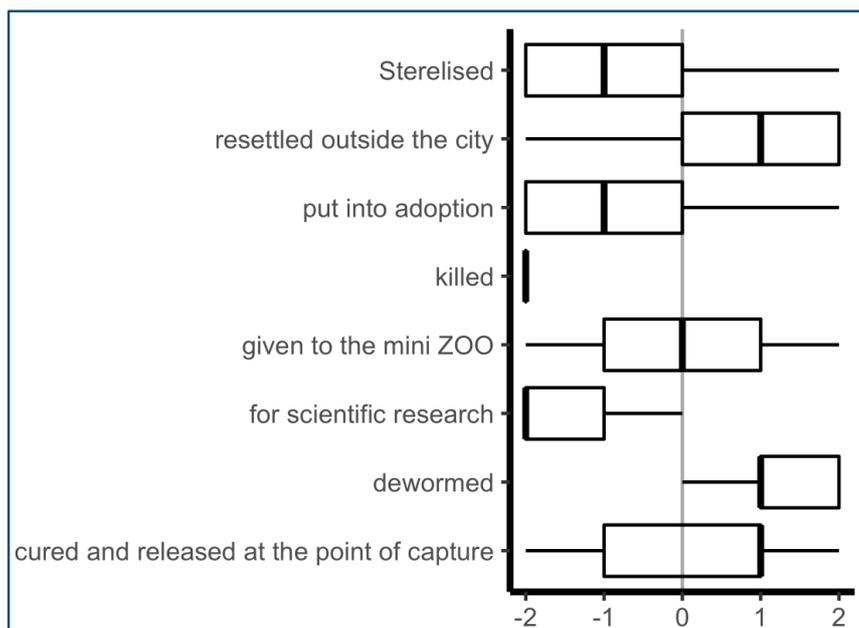
Q 2. What would you do with a wounded or sick wild animal?



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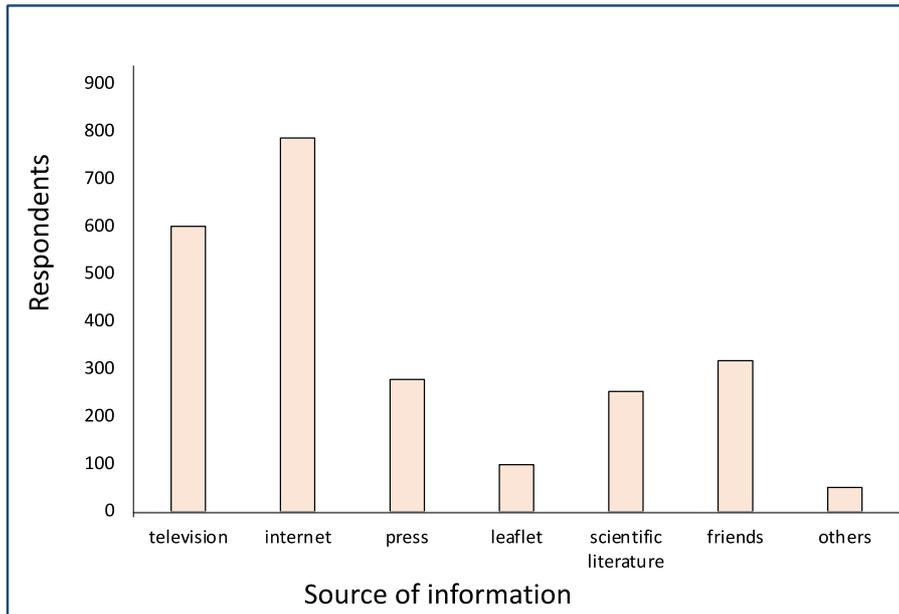
Results

Q 3. How do you think the injured or sick wild animal should be treated by the appropriate services?



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Results



Sources of information about presence of wild animals in the city

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Discussion

+ People feel connected to nature observing wild animals.

There is no denying that animals come to the cities due to shrinking of their natural habitats.

Injured animals should be treated by appropriate bodies and not left alone.

Wild animals irrespective of whether injured or not, should not be killed or sterilised.

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Discussion

- There is a general agreement that wild animals should not be living in the city.

Aggressive behaviour or no fear of wild animals are a source of potential human-wild life conflict in the city.

Destruction of properties, buildings and road collisions are some of the identified conflicts.

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Conclusion

Most residents (64.75%) were unaware of any institution that can help with dealing with conflicted wild animal, although majority (80.97%) agreed that there is a need for such information campaigns.

The study provides an idea to incorporate people's perception about wildlife into the planning and effective management of wildlife in the city.

The study showed that perceived benefits or harm from wildlife are the strongest driver of practice adoption.

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Refereces

Basak, S.M., Wierzbowska, I.A., Gajda, A., Czarnoleski, M., Lesiak, M., Widera, E. 2020. Human–Wildlife Conflicts in Krakow City, Southern Poland. *Animals* 10, 1014.
<https://doi.org/10.3390/ani10061014>

Treves, A., Bruskotter, J. 2014. Tolerance for Predatory Wildlife. *Science* 344, 476–477.
<https://doi.org/10.1126/science.1252690>



THANK YOU



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