Citizen Science as a Tool to Assess Human-Wildlife Conflict and Coexistence in Human-Dominated Landscapes

Case study of three returning wildlife species in northeast Germany

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MARIANNE UND DR. FRITZ WALTER FISCHER-STIFTUNG

ŁOŚBONASUSCROSSING!

Interreg Mecklenburg-Vorpommern/Brandenburg/Polska

EUROPEAN UNION

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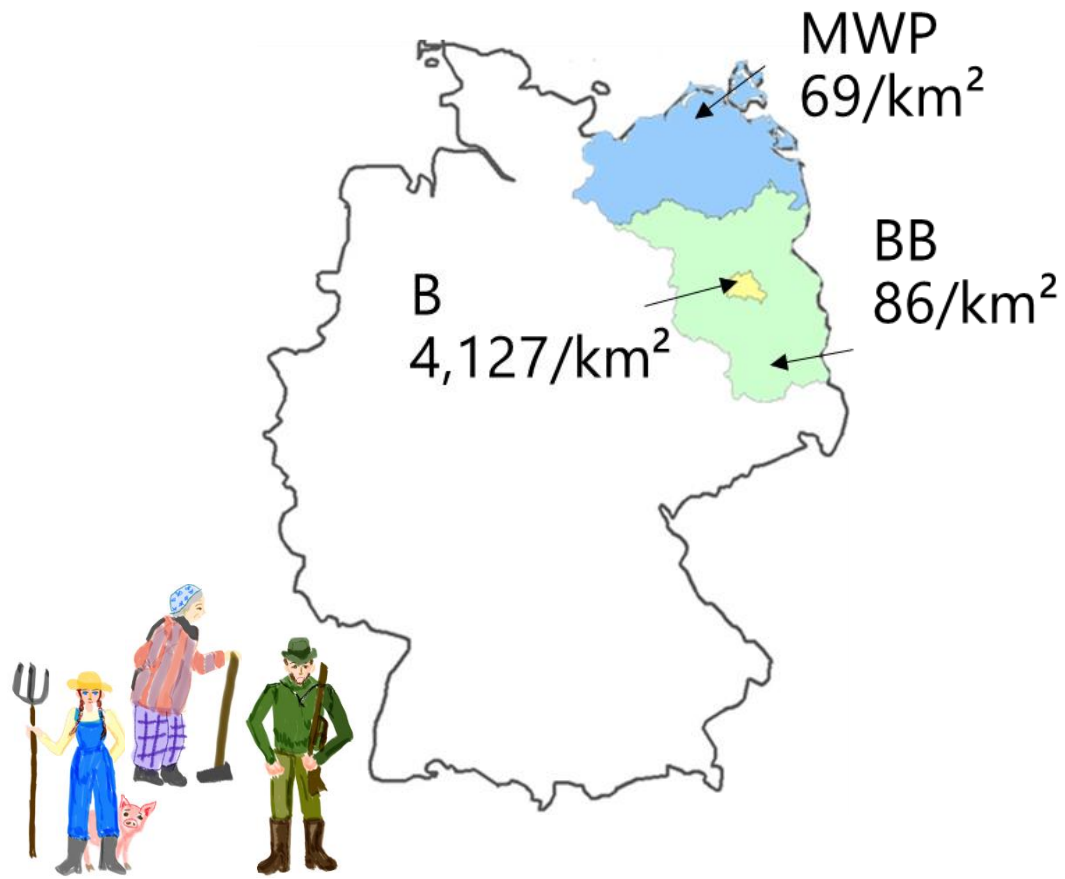
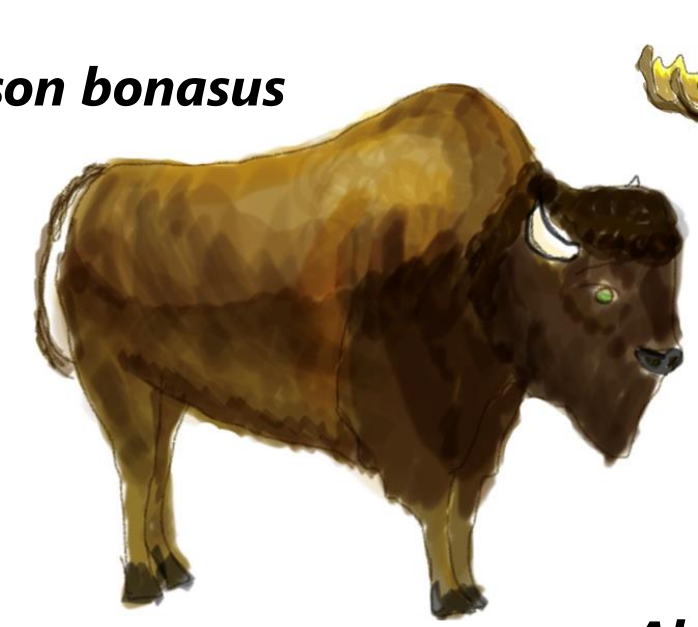
Northeast Germany



Returning wildlife species

Bison bonasus



Alces alces

Canis lupus

- Berlin, Brandenburg, Mecklenburg-West Pomerania
- Agricultural production
- Bordering Poland (transboundary animal movement)

Benefits-Challenges

- Ecosystem engineers
- Increase of biodiversity
- Tourism

- Traffic accidents
- Damage to agriculture and forestry
- Livestock predation

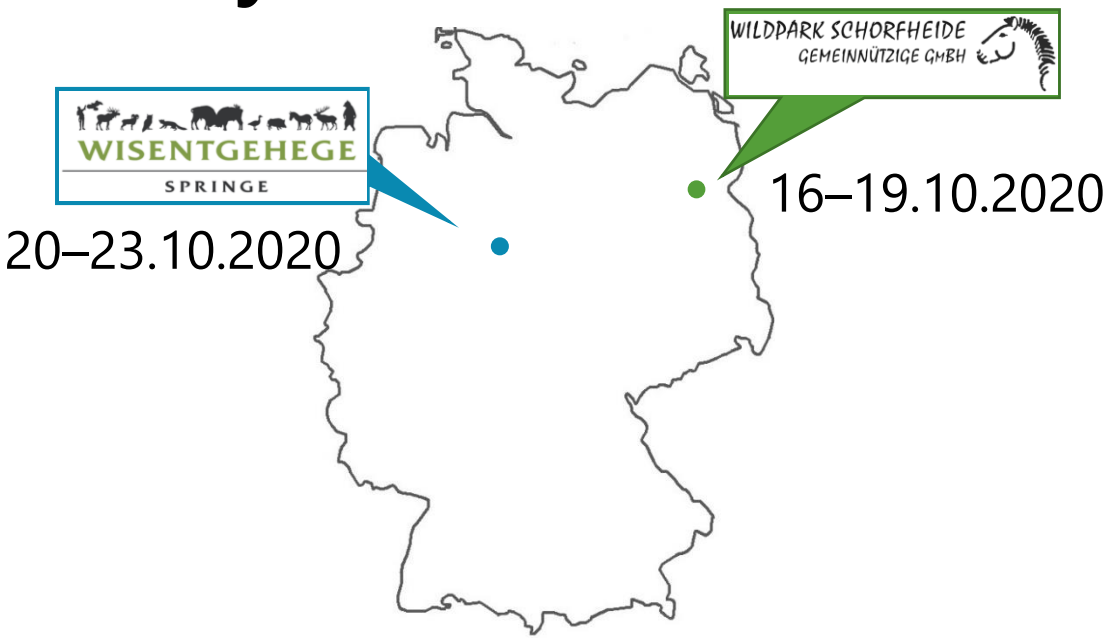
Objective

Assess the potential of citizen science

– both as a **monitoring tool** and a participatory **management approach** –

to realize a better and more sustainable coexistence with the three returning wildlife species: **European bison** (*Bison bonasus*), **moose** (*Alces alces*) and **grey wolf** (*Canis lupus*) in northeast Germany

Survey



- Knowledge
- Attitudes
- Citizen Science
- Sociodemographic background

99 Questions
10-15 Minutes

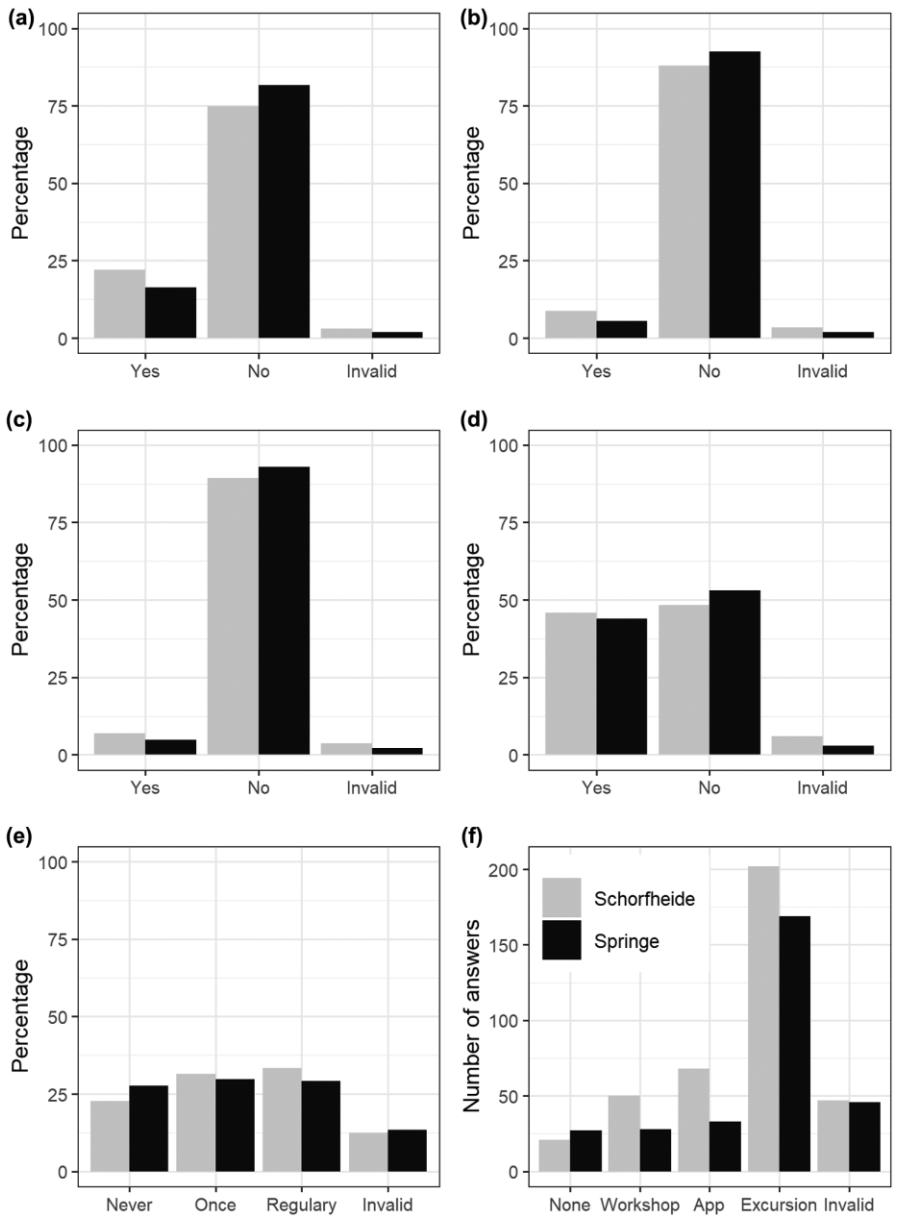
	Schorfheide		Springe		Total[a]	
Number of participants	321		268		589	
Degree of urbanization						
Urban	156	48.6%	50	18.6%	206	35.0%
Rather urban	52	16.2%	32	11.9%	84	14.3%
Rather rural	54	16.8%	73	27.2%	127	21.6%
Rural	36	11.2%	92	34.3%	128	21.7%
Gender						
Female	172	53.6%	149	55.6%	321	54.4%
Male	120	37.4%	92	34.3%	212	36.0%
Diverse	1	0.3%	1	0.4%	2	0.3%
Age						
Under 24	16	5.0%	39	14.6%	55	9.3%
25–29	25	7.8%	19	7.1%	44	7.5%
30–39	79	24.6%	47	17.5%	126	21.4%
40–49	81	25.3%	66	24.6%	147	25.0%
50–59	62	19.3%	34	12.7%	96	16.3%
Over 60	34	10.6%	35	13.6%	69	11.7%

Table. The sociodemographic background of the participants in Schorfheide and Springe

Willingness and motivation of citizen scientist

Knowledge of returning wildlife species and willingness to participate in citizen science projects among wildlife park visitors in Germany.

2022, People and Nature
DOI: 10.1002/pan3.10379



(a) Have you ever heard the term 'citizen science' before?
(b) have you ever participated in a CS project?
(c) are you currently taking part in CS projects?
(d) would you be interested to take part in a CS
(e) how often would you want to take part in CS projects?
(f) which format is the most interesting for you?

Fig. Knowledge and interest of wildlife park visitors in CS

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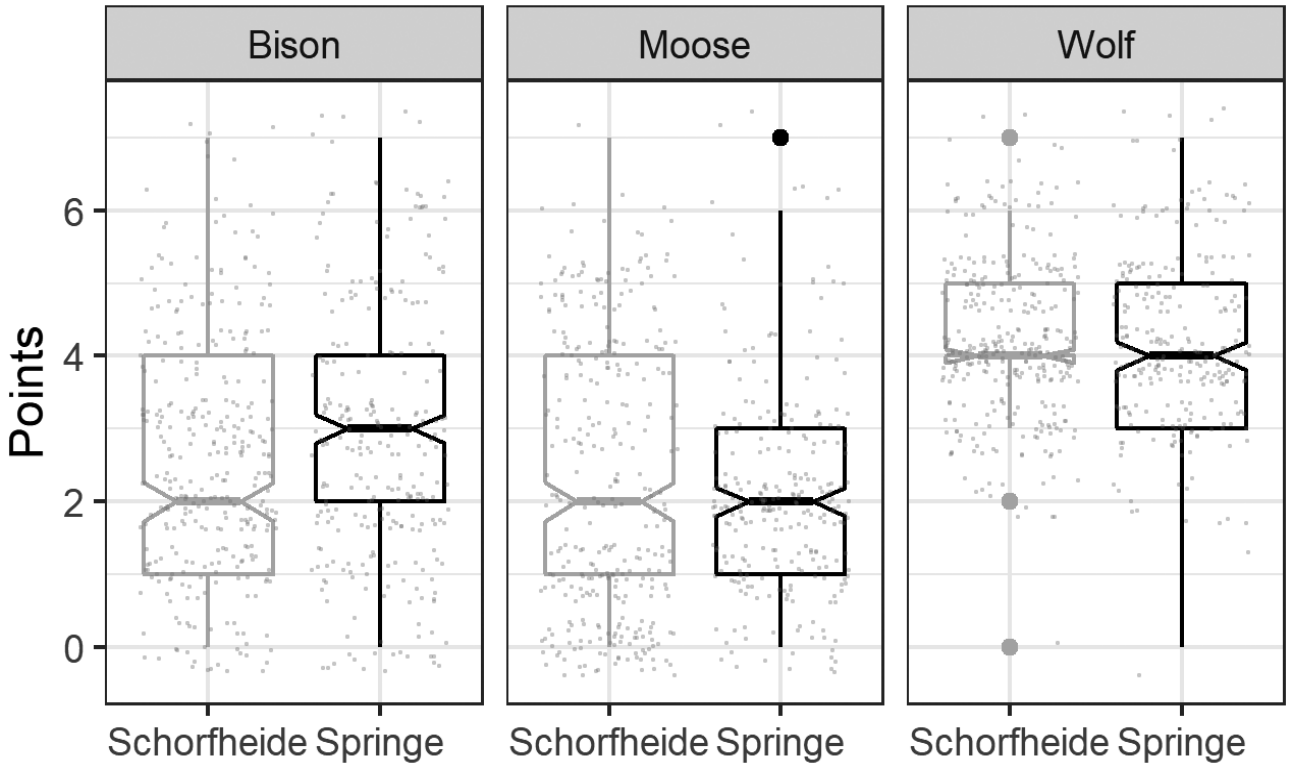

Fig. Distribution of knowledge points

- Generally high willingness to participate in CS
- Difference in knowledge status between species

Citizens attitude towards the three species

Attitudes of wildlife park visitors towards returning wildlife species: Analysis of patterns and correlates.

2023, Biological Conservation
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10.1016/j.biocon.2022.109878

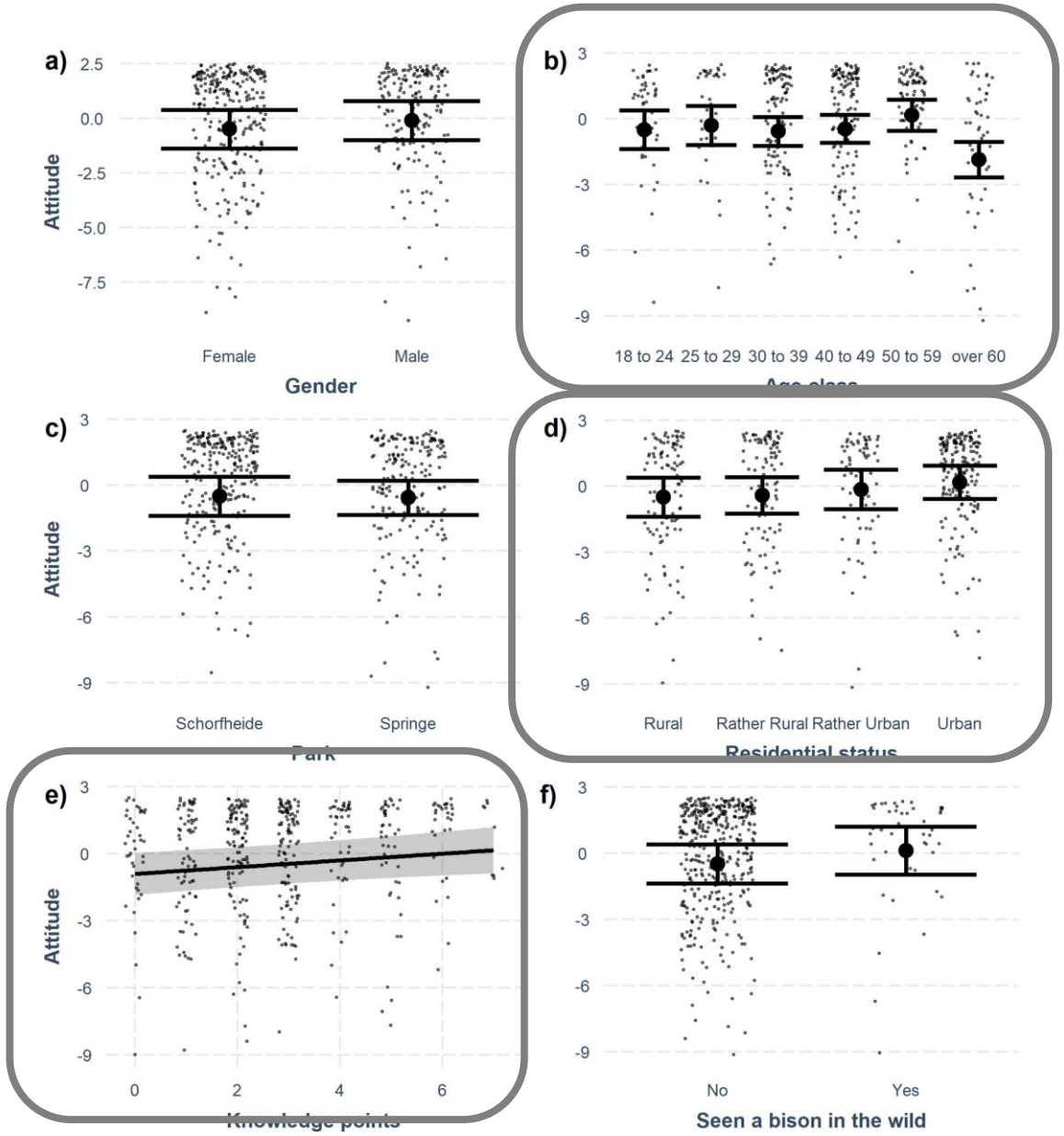

Fig. Factors influencing attitudes towards European bison

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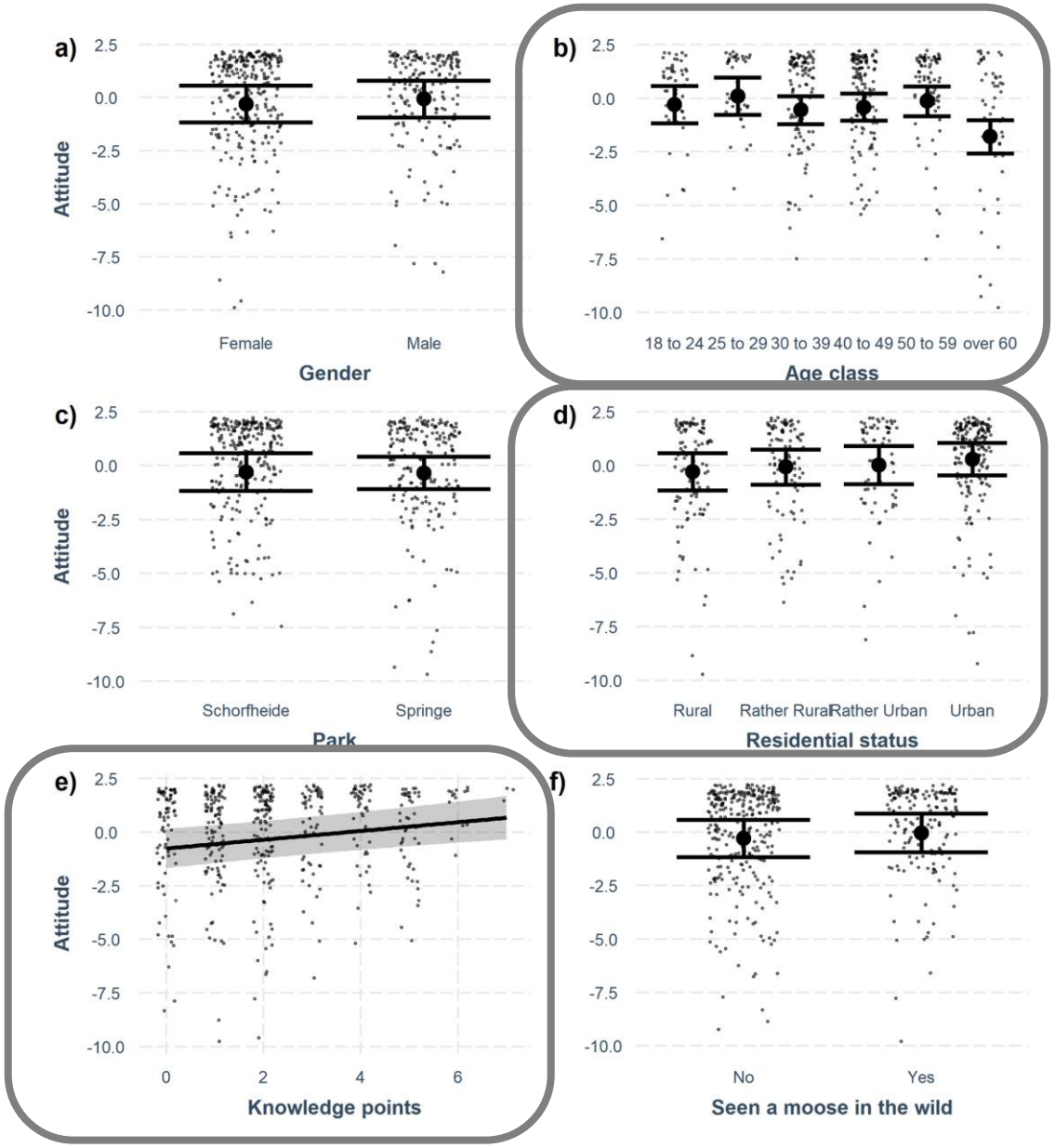

Fig. Factors influencing attitudes towards moose

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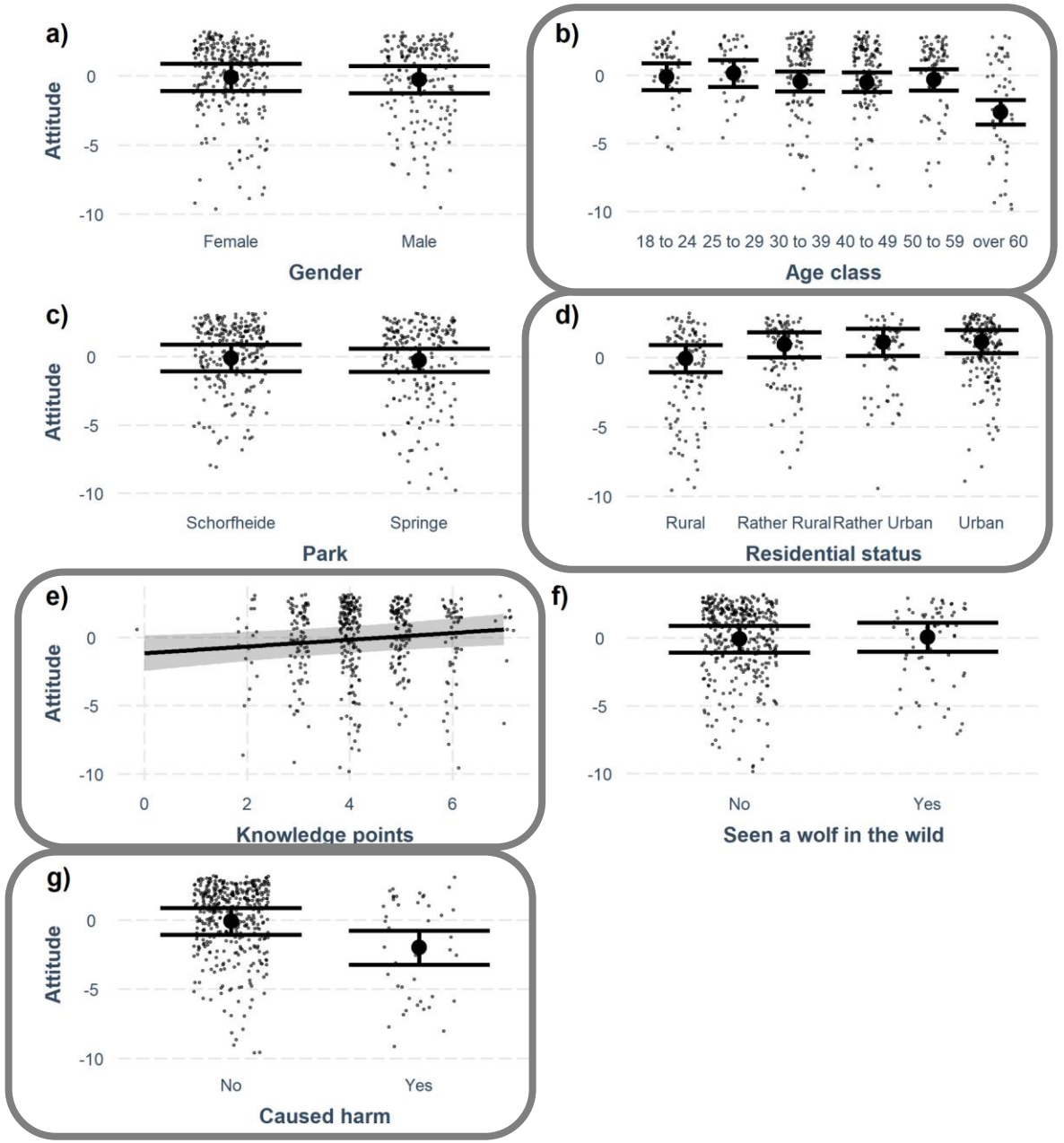

Fig. Factors influencing attitudes towards wolf

Citizens attitude towards the three species

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- Better knowledge was significantly correlated with more positive attitudes towards the three wildlife species

- Human attitudes are complex and cannot be sufficiently explained only based on sociodemographic variables

Thank you for listening!
Any questions?

Chapter 5 (Paper 4)

Attitudes of wildlife park visitors towards returning wildlife species: Analysis of patterns and correlates. *Biological Conservation*

Chapter	Focus
1	General introduction
2	Review on citizen science
3	Review and future perspective of citizen science in wildlife research
4	Understanding factors influencing motivation of citizen scientists
5	
6	Technical application of citizen science in wildlife monitoring
7	General discussion

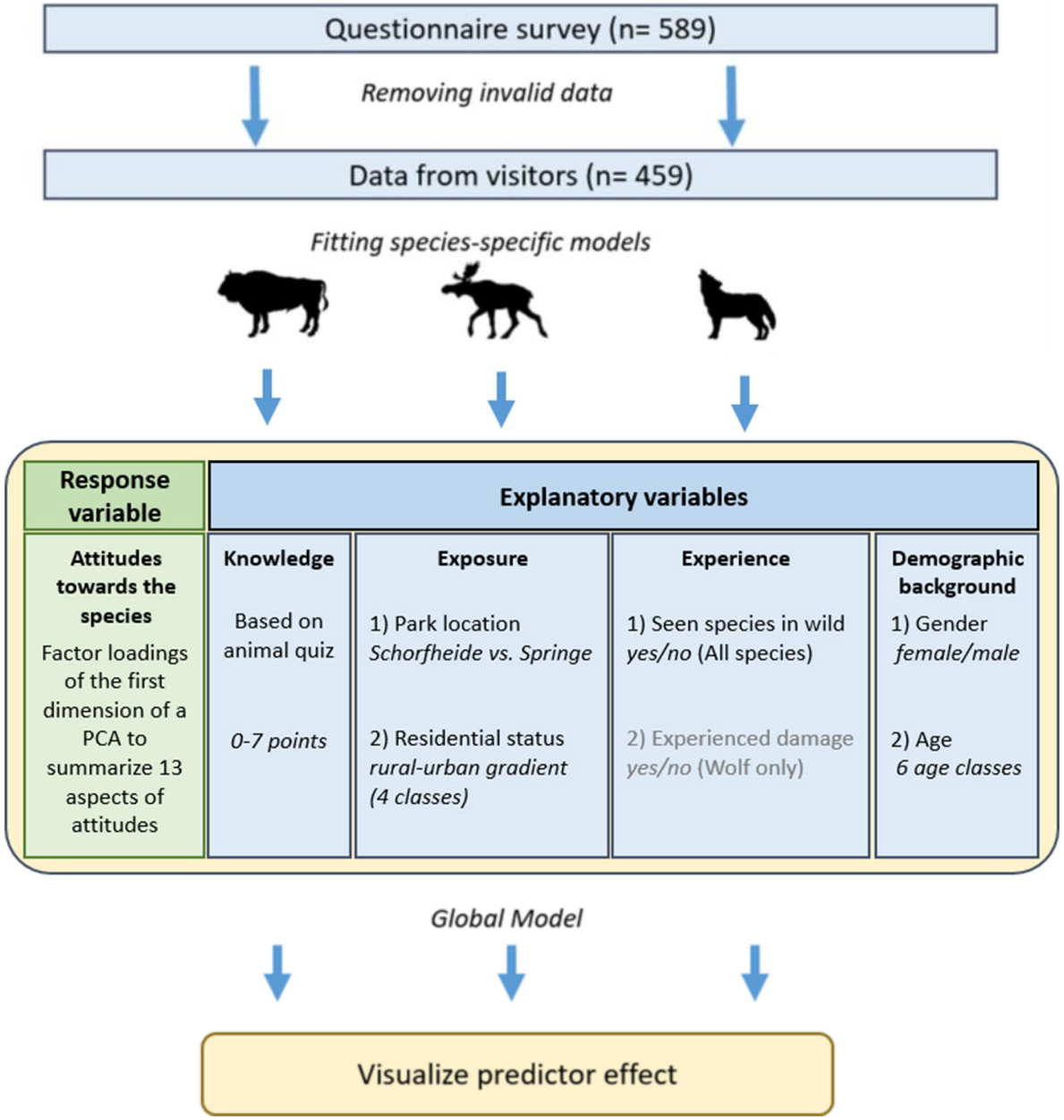

Fig. Flowchart explaining analysis steps