

BEARS AT RISK IN SLOVAKIA UNDER POLITICAL PRESSURES

Dušan Janák^{1,2} , Michal Haring² , Lea Kráľová²

¹ Mendel University in Brno, Faculty of Regional Development and International Studies, Zemědělská 1, 613 00 Brno, Czech Republic

² Comenius University, Faculty of Arts, Šafárikovo námestie 6, P.O.BOX 440, 814 99 Bratislava 1, Slovak Republic

Abstract

The brown bear (*Ursus arctos*) is the largest carnivore in Slovakia and plays a key role in natural ecosystems. Over the past five years, there has been a significant change in public discourse about brown bears in Slovakia. On the one hand, there has been a quantitative increase in media interest, and on the other hand, the topic has become politicized. Although the coexistence of humans and bears and the conflicts between them seem at first glance to be a very apolitical relationship, in reality, they have strong political connotations in contemporary Slovak society. Legislative developments and bear management after the 2023 elections took a radical turn towards widespread culling of bears without addressing individuals involved in human-bear conflicts in accordance with international standards and European legislation. Instead of a decline in conflicts, they have increased in the years of the largest culling. Political orientation is one of the strongest predictors of attitudes towards bears and their management. Attitudes towards bears and their management now divide Slovak society in a similar way to attitudes towards the ruling political establishment.

Keywords: Bears, Slovakia, Politics, Public Opinion, Legislation

<https://doi.org/10.11118/978-80-7701-082-5-0106>

JEL Code: Q28, Q57, D72

Introduction

The brown bear (*Ursus arctos*) is the largest carnivore in Slovakia and plays a key role in natural ecosystems. As an omnivore, it feeds mainly on plant food, especially forest fruits and seeds, insects, small animals, and carrion, thus contributing to the ecological balance in the habitats. Through its extensive movements across large areas, the brown bear contributes significantly to seed dispersal and natural forest regeneration, thereby supporting the preservation of biodiversity and maintaining ecosystem functionality.

At the same time, bears are among the wild animal species most frequently involved in conflicts with humans (Naves *et al.*, 2016). These conflicts include a wide range of situations, from causing damage to agricultural crops and livestock (Treves *et al.*, 2002) to directly threatening human health and life (Zinn *et al.*, 1998). However, bears are not born problematic; they can become so during their lifetime, mainly due to human negligence. One of the main factors in this regard is completely unsecured or inadequately secured municipal waste.

Over the past five years, there has been a significant change in public discourse about bears in Slovakia. This change has both quantitative and qualitative dimensions. Quantitatively, there has been a clear increase in media coverage of the brown bear issue in Slovakia. According to data from the Technical University in Zvolen, only 25 articles on this topic were published in the Slovak media in 2011, but in 2022, the number rose to 848, reaching 2,483 articles two years later (MEDVEDE, not dated).

From a sociological point of view, the qualitative change accompanying the quantitative increase in interest is particularly interesting, as it has the character of the politicization of nature. The main argument of our text is that although the coexistence of humans and bears and the conflicts between them seem at first glance to be a very apolitical relationship, in reality, they have strong political connotations in contemporary Slovak society.

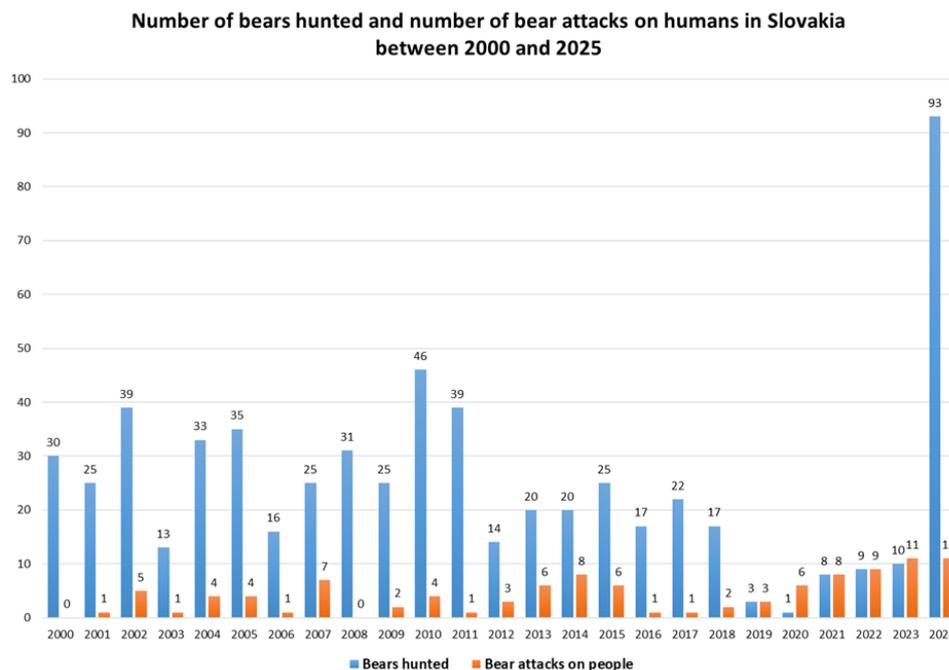
We will illustrate this claim in the following text using various empirical data. First, we will present basic data on the number of bears and the development of conflicts with them in Slovakia. In the following sections, we will summarize data on changes in legislation concerning bear management and changes in attitudes. We will relate these changes to political developments, for which the 2023 elections were a turning point.

How Many Bears are there in Slovakia? And how many Conflicts are there?

One of the fundamental questions that arouses widespread public interest concerns the number of bears in Slovakia. Behind this question lies the concern that conflicts with bears occur because there are too many of them.

Two studies have been conducted in Slovakia to estimate the brown bear population based on the collection and evaluation of samples (genetic material). A 2014 study conducted by the Technical University in Zvolen (TUZVO) estimated the number of brown bears in Slovakia at 1,256 individuals (Paule, 2015, unpublished), and a recent 2021 study by Charles University in Prague estimated the number at 1,056 individuals (Tkáčová *et al.*, 2021, unpublished). Based on these two estimates, it can be concluded that the bear population in Slovakia is neither significantly increasing nor decreasing, but is stable.

More important than the total number of bears in the area in question is the number of individuals that have lost their natural behaviour, interact with humans, and the reason why this is happening. In other words, the problem is not the bear, but the individual that is involved in conflicts with humans. The following graph gives us an idea of how the number of conflicts ending in bear attacks on humans has developed over the last quarter of a century.



1: Number of bears hunted and number of bear attacks on humans in Slovakia between 2000 and 2024

Source: Source: Brown Bear Management Program in Slovakia, M. Haring – Bear attacks on humans in Slovakia between 2000 and 2016, State Nature Conservation of the Slovak Republic)

The number of bear attacks on humans in Slovakia has been on a slight upward trend since 2000, but in 1985–1987, for example, an average of nine people were injured by bears each year (Hell and Bevilacqua 1988). In 2023, ten bears were shot in Slovakia, which is about a tenth of the number shot in 2024, when 93 individuals were shot. The number of bear attacks on humans remained the same. These data show that the number of bears shot is not related to the number of attacks, as even the shooting of nearly a hundred bears did not reduce the number of conflicts between bears and humans. This fact is confirmed by further attacks that took place in 2025. In the first ten months of 2025, 13 attacks were recorded. In terms of the severity of the attacks, three attacks resulted in human deaths in 2021, 2024, and 2025. Most attacks occur when a bear is surprised by a person who unknowingly enters the vicinity of a female bear with cubs or crosses the so-called critical distance. In our conditions, these are defensive attacks, as opposed to predatory attacks, in which the bear considers the human to be prey (predatory attacks are recorded, for example, in areas with the presence of grizzly bears and polar bears). In most cases in Slovakia, victims of attacks have bite or scratch injuries that are not life-threatening. The ineffectiveness of mass culling of bears lies in the fact that it does not target individuals with altered behaviour but rather shoots random bears, regardless of the impact on the bear population or the potential danger associated with the wounded individual. This unfavourable situation was made possible by changes in legislation that occurred after the 2023 elections.

Developments in Legislation Concerning Bear Management in Slovakia after the 2023 Elections

On **March 27, 2024**, the Government of the Slovak Republic approved a draft constitutional law whose stated goal was to address the situation with bears appearing close to human settlements and the associated safety risks. The proposed solution assumed that any brown bear found within 500 meters of any town or village could be legally shot. Hunters, members of the police force, employees of the State Nature Conservation Agency of the Slovak Republic, and National Park Administrators were to be authorized to carry out the intervention. Such a legislative measure represented a fundamental break with the existing policy of conserving this protected animal, as it would allow for a very broad interpretation of situations in which a bear could be killed without the need for an expert risk assessment. The measure was politically justified mainly by the growing number of encounters between humans and bears, as well as by incidents reported in the media, which caused increased concern in society.

However, on **April 16, 2024**, the originally proposed constitutional law was ultimately not passed in this form. After negotiations with part of the opposition, Environment Minister Tomáš Taraba agreed to amend the proposal. The key change was that the “500-meter” range was removed from the text. At the same time, the original term “large carnivore,” which included the grey wolf, Eurasian lynx, and golden jackal, was narrowed down to exclusively refer to the “brown bear.” This step transformed the legislative proposal into a legal framework focused on a single species, which is currently the subject of the most intense public debate in the field of nature conservation in Slovakia.

The new version of the law, following a political agreement with the party KDH (Kresťansko-demokratické hnutie), stipulated that shooting a bear within 500 meters of a village would not be possible automatically, but only in cases of proven danger to human life, health, or property. This change was seen as a compromise between the government's radical proposal and the demands of part of the public.

On **May 21, 2024**, parliament approved an amendment to the Nature and Landscape Protection Act and the Civil Protection Act, which significantly simplifies the process of culling bears in the vicinity of human settlements. The new legislation allows for a state of emergency to be declared due to the presence of brown bears, similar to the case of an earthquake or terrorist attack.

On **June 8, 2024**, the legal amendment came into force with its publication in the Collection of Laws of the Slovak Republic. From that moment on, district offices, hunting associations, and intervention teams began to operate within the new legislative framework.

Reality in Practice

In practice, this legislative change had a significant and immediate impact. During 2024, bears were killed on a large scale by intervention teams or on the basis of agreements with hunting associations. Just a few months after the law came into force, the number of individuals killed rose sharply. Despite the declared goal of reducing conflicts between humans and bears, statistics show that the number of attacks remained high, even reaching an all-time high. These data sparked another wave of debate about the effectiveness of the measures taken and whether the problem is actually being solved or just shifted elsewhere.

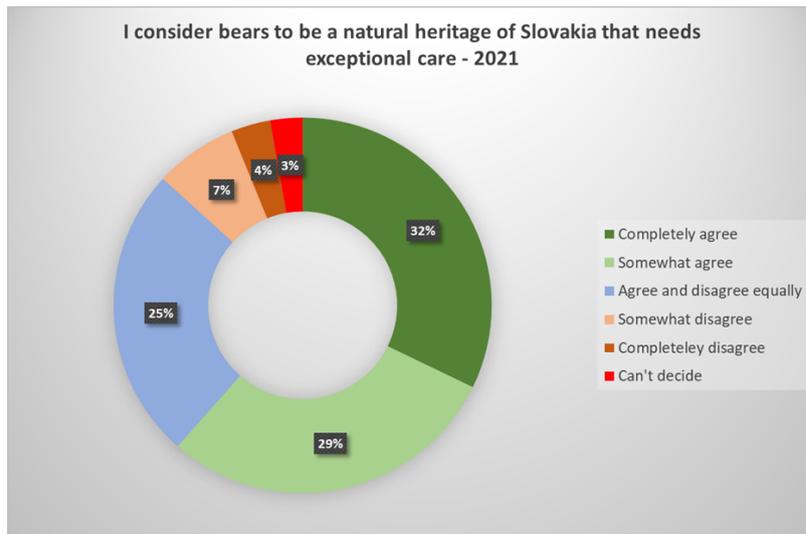
Several experts, conservation organizations, and environmental lawyers point out that culling alone is not a systemic solution and that without comprehensive measures such as better waste management, reducing the attraction of wildlife by feeding, and long-term preventive work with the public, the number of conflicts will not decrease.

From January to autumn 2025, approximately 160 bears were shot, the highest number in decades. Despite this, the number of encounters and attacks on humans has not decreased, suggesting that new legislation and widespread shooting are not only insufficient to solve this complex problem but may also lead to counterproductive unintended consequences.

“Tell me who you vote for and I'll tell you what you think about bears.” – The relationship between the Slovak public's attitudes towards bears and their political orientation

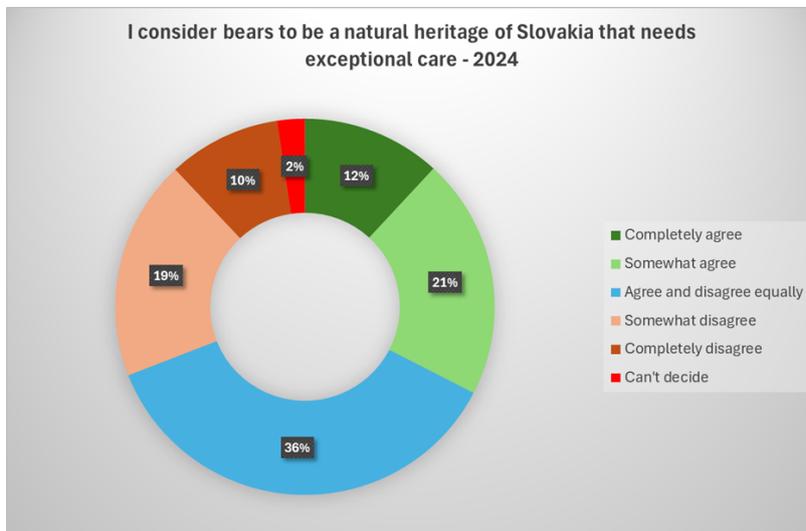
The views of Slovak society on the value of bears are changing dynamically. From a clearly positive attitude in 2021, research in 2024 recorded the polarization of two opposing camps.

In 2021, when the survey was conducted as part of the ISSP Environment research, 61% of respondents expressed a positive attitude towards bears, which are perceived as an important part of natural heritage (32% of respondents answered “Completely agree” and 29% “Somewhat agree”). A neutral position was taken by 25% of respondents, who stated that they “agree and disagree equally.” Only 11% of respondents expressed negative attitudes towards bears (7% answered “Somewhat disagree” and 4% “Completely disagree”). 3% of respondents were unable to take a clear position.



2: Results of a survey on the perception of the brown bear as a natural resource of Slovakia that requires special care – 2021, N = 1 013
 Source: ISSP Environment Slovak Republic (2021)

The 2024 public opinion survey revealed three main groups of respondents based on their attitudes toward brown bears in Slovakia. The first group consists of affirmative responses (33%), with “Completely agree” (12%) and “Somewhat agree” (21%) expressing people’s positive attitude towards bears, who perceive our largest carnivore as an important part of our natural heritage. The largest group of respondents (36%) are neutral respondents who answered “Agree and disagree equally.” Disagreeing responses (29%) include “Somewhat disagree” (19%) and “Completely disagree” (10%). Only a small proportion of respondents (2%) were unable to express an opinion, indicating that the majority of the population has a definite stance on this issue.



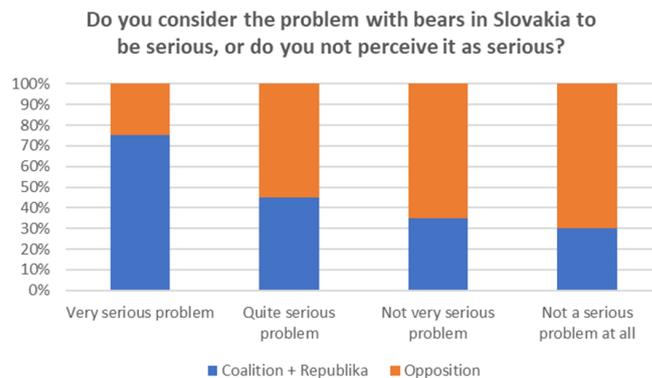
3: Results of a survey on the perception of the brown bear as a natural resource of Slovakia that requires special care, 2024, N = 639
 Source: FOCUS Agency (2024)

The results show that respondents’ attitudes toward bears are divided almost evenly between those who have positive opinions and those who have negative opinions about bears. This fact indicates the existence of significant polarization in society, which may reflect the level of awareness about the issue of bears and the way their media presentation has changed.

The analysis becomes sociologically interesting when we try to answer the question of what caused such a shift in opinion. Although we cannot precisely determine the extent of the media’s influence on perceptions of bears, it is likely that the extreme increase in media attention to the issue of bears has at

least increased the sensitivity of the Slovak population to this topic. At the same time, the media creates opportunities to link any topic with other connotative meanings, whether political and ideological, economic, emotional, public-political, etc. Given that bears became a frequent topic of pre-election discussions in 2023, the question of the politicization of the issue is obvious.

Representative data from 2024 give us a fairly clear idea that opinions on bears have political implications. The following graph shows the distribution of the severity of bear problems in Slovakia among voters of the national-conservative ruling coalition and voters of the progressive opposition.



4: Assessment of the severity of bear problems in Slovakia among voters of the governing coalition and the political opposition in 2024, $N = 639$

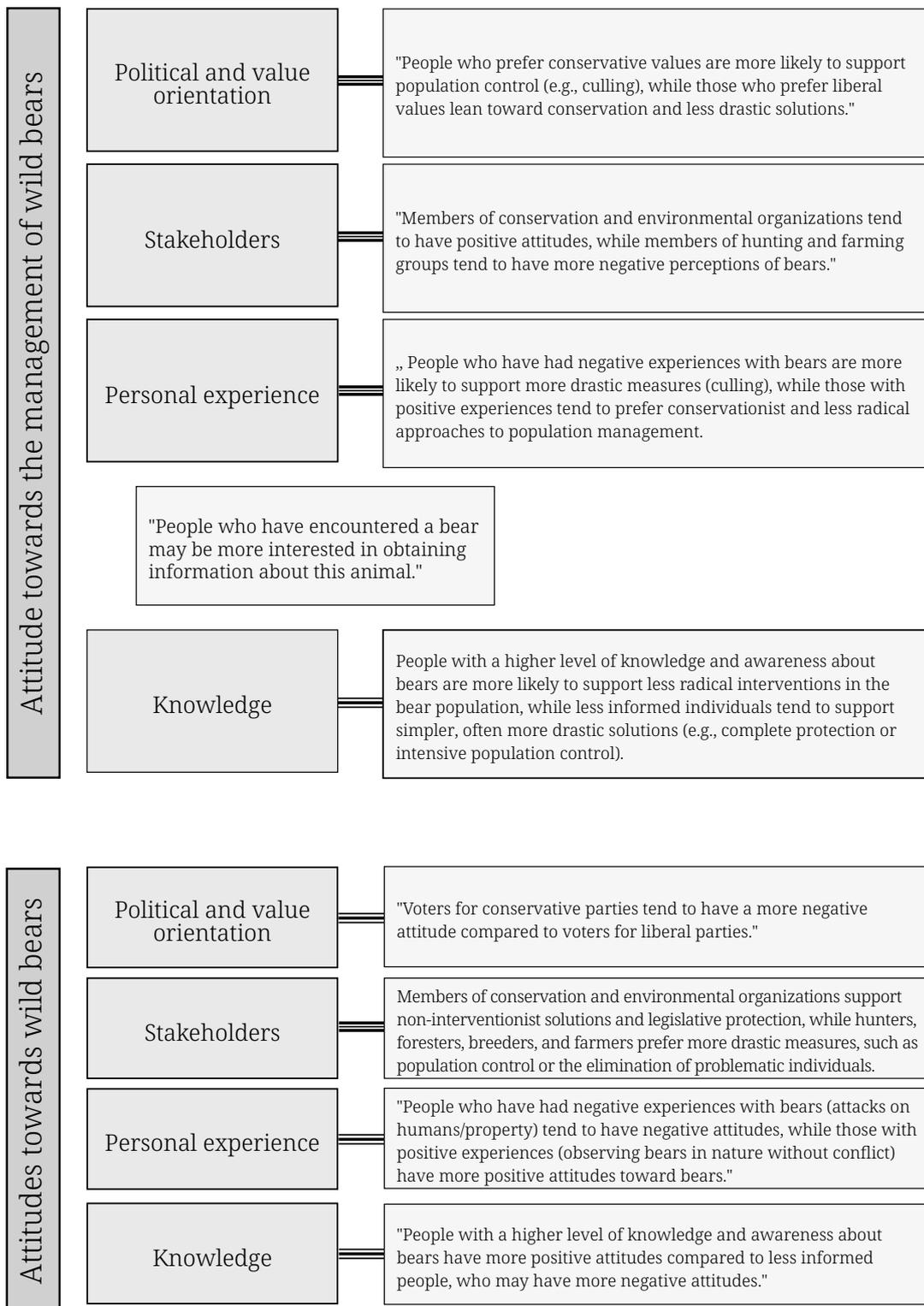
Source: FOCUS Agency (2024)

Political orientation was measured in the survey by asking voters who they would vote for if elections were held now. The governing coalition consists of the political parties Smer – Sociálna Demokracia, Hlas – Sociálna Demokracia, and Slovenská Národná Strana. The opposition consists of the parties Progresívne Slovensko, Sloboda a Solidarita, Slovensko (formerly OĽANO), and Kresťansko-demokratické hnutie.

The graph shows that voters for the governing coalition perceive the seriousness of the bear problem in Slovakia as greater than opposition voters. This division corresponds to the pre-election and post-election rhetoric of the governing coalition. However, representative data sets do not allow us to determine the weight of the political orientation factor in the context of other important factors.

An attempt was made to do so in a non-representative survey conducted in one of the bear regions in the Low Tatras, in the town of Ružomberok and its surroundings (Kráľová, 2025). The research, based on a sample of 207 respondents recruited using the snowball method among the town's inhabitants, focused on a set of four factors identified in the professional literature (Oražem *et al.*, 2021; Fortin *et al.*, 2016; Hughes *et al.*, 2020; Eriksson *et al.*, 2015; Franchini *et al.*, 2021; Czech and Borkhataria, 2001; Manfredo *et al.*, 2009; van Eeden *et al.*, 2021; Dunlap, 1975; Ilmarinen *et al.*, 2021; Urban, 2016; Johansson *et al.*, 2019; Hughes *et al.*, 2020; Šiko, 2024) as key factors influencing attitudes towards bears and large carnivores and their management in general. These factors include political and value orientation, stakeholders, personal experience, knowledge, and awareness.

None of the factors studied were very strong, but political orientation was the strongest of all those tested. The more conservative the orientation, the more negative the attitude towards the presence of bears ($r = -0.199$) and the greater the support for interventions such as culling. More liberal-minded respondents were more likely to support preventive approaches, considered bears to be part of nature, and were more convinced of the possibility of coexisting with these predators. A higher level of knowledge and awareness (a higher number of correct answers to knowledge questions) is associated with a slightly more positive attitude towards the presence of bears and a more moderate approach to their management. However, the measured relationship can be described as weak (e.g., $R^2 = 0.026$ for occurrence), which suggests that awareness does play a role, but its effect is secondary. Personal experience with bears has a slight influence. People who have experienced damage were more likely to support decisive action (e.g., the government's proposal to cull bears). Farmers and beekeepers showed slightly more negative attitudes and at the same time preferred more decisive measures. Tourists and hunters did not differ significantly but generally had a neutral to slightly positive attitude. However, the differences were not large, which may be due to the uneven representation of groups in the sample. Findings from a single region in the form of a non-representative research survey cannot be generalized, and the sample size does not allow for more complex statistical analyses. However, these findings paint a picture of the overall social background of attitudes towards bears and their management and provide clues for interpreting robust data from representative surveys of Slovak society.



5: Factors influencing attitudes towards bears and their management
 Source: Kráľová (2025)

Current data suggest that the most important factor in predicting attitudes towards bears is the political orientation of the respondent. This is probably more important than awareness, personal experience, the existence of damage, or membership in any stakeholder interest groups.

Discussion and Conclusion

Political orientation is one of the main predictors of Slovak citizens' attitudes toward bears, their assessment of conflicts with humans, and their opinions on bear management. The case of Slovak bears is an example of the politicization of nature. This is evidenced by the media coverage of bears, their role in election campaigns, legislative developments after elections, and fundamental changes in bear management leading to their widespread reduction. From a post-anthropocentric perspective, bear management implemented in this way is an example of environmental injustice, as it does not focus on problematic individuals but resolves conflicts through more or less widespread killing. At the same time, this management does not appear to be effective, but rather seems to escalate conflicts. The more invasive and less professional the culling, the more conflicts there are, including fatal ones. However, it seems that the real cause of this situation is not a single parliamentary election, but rather autocratic processes that allow one group of stakeholders to control key positions in various areas of government administration in the field of environmental public policy, restrict media freedom, eliminate mechanisms of horizontal balance of power in a democratic system, and, regardless of protests from the domestic and international professional community, move away from evidence-based policy and management guided by international standards and European legislation. Verifying and refining these assumptions is a challenge for further theoretical and empirical research.

Acknowledgements

This paper was supported by the project VEGA No. 1/0187/24, „Sociology at the borders of the genus homo sapiens: Social relations to animals at the micro-level of everyday life, the meso-level of communities and the macro-level of public policy institutions“, funding: The Ministry of Education, Research, Development and Youth of the Slovak Republic and as part of the Comenius University - Grant mladých (GUK) No. UK/1181/2025 and by IGA FRDIS Mendel University in Brno grant No. 23-017.

References

- CZECH, B., BORKHATARIA, R. 2001. The relationship of political party affiliation to wildlife conservation attitudes. *Politics and the Life Sciences*. 20(1), 3–12.
- DUNLAP, R. E. 1975. The impact of political orientation on environmental attitudes and actions. *Environment and Behavior*. 7(4), 428–454. <https://doi.org/10.1177/001391657500700402>
- EEDEN, L. M., RABOTYAGOV, S., KATHER, M., BOGEZI, C., WIRSING, A. J., MARZLUFF, J. 2021. Political affiliation predicts public attitudes toward gray wolf (*Canis lupus*) conservation and management. *Conservation Science and Practice*. 3(3), e387. <https://doi.org/10.1111/csp2.387>
- ERIKSSON, M., SANDSTRÖM, C., ERICSSON, G. 2015. Direct experience and attitude change towards bears and wolves. *Wildlife Biology*. 21(3), 131–137. <https://doi.org/10.2981/wlb.00062>
- FORTIN, J. K., RODE, K. D., HILDERBRAND, G. V., WILDER, J., FARLEY, S., JORGENSEN, C., MARCOT, B. G. 2016. Impacts of human recreation on brown bears (*Ursus arctos*): a review and new management tool. *PLOS ONE*. 11(1), e0141983. <https://doi.org/10.1371/journal.pone.0141983>
- FRANCHINI, M., CORAZZIN, M., BOVOLENTA, S., FILACORDA, S. 2021. The return of large carnivores and extensive farming systems: a review of stakeholders' perception at an EU level. *Animals*. 11(6), 1735. <https://doi.org/10.3390/ani11061735>
- HARING, M. 2018. *Bear attacks on people in Slovakia in 2000–2016*. Thesis. University of South-Eastern Norway; Žilina University.
- HELL, P., BEVILAQUA, F. 1988. Das Zusammenleben des Menschen mit dem Braunbären (*Ursus arctos*) in den Westkarpaten. *Zeitschrift für Jagdwissenschaft*. 34, 153–163.
- HUGHES, C., FRANK, B., MELNYCKY, N. A., YARMEY, N. T., GLIKMAN, J. A. 2020. From worship to subjugation: understanding stories about bears to inform conservation efforts. *Ursus*. 31(e2), 11–12. <https://doi.org/10.2192/URSUS-D-19-00002.2>
- ILMARINEN, V. J., SORTHEIX, F. M., LÖNNQVIST, J. E. 2021. Consistency and variation in the associations between refugee and environmental attitudes in European mass publics. *Journal of Environmental Psychology*. 73, 101540. <https://doi.org/10.1016/j.jenvp.2020.101540>
- JOHANSSON, M., FLYKT, A., FRANK, J., STØEN, O. G. 2019. Controlled exposure reduces fear of brown bears. *Human Dimensions of Wildlife*. 24(4), 363–379. <https://doi.org/10.1080/108010871209.2019.1616238>
- KOREŇ, M. [2024]. *MEDVEDE na slovensku a vo svete [BEARS – in Slovakia and around the world.]* [Accessed 15 October 2025] <https://gis.tuzvo.sk/medvede/>

- KRÁLOVÁ, L. 2025. *Attitudes towards wild bears and bear management in selected groups of Slovak society*. Bachelor's thesis. Comenius University. [Accessed: 15 October 2025] <https://opac.crzp.sk/?fn=detailBiblioForm&sid=E1578DECED3BC9A506A24C8E7EAC>
- MANFREDO, M. J., TEEL, T. L., HENRY, K. L. 2009. Linking society and environment: a multilevel model of shifting wildlife value orientations in the western United States. *Social Science Quarterly*. 90(2), 407–427. <https://doi.org/10.1111/j.1540-6237.2009.00624.x>
- NAVES, J., CAMARRA, J. J., CHIRIAC, S., CUICCI, P., DELGADO, M. M., DUTSOV, A., ... PENTERIANI, V. 2016. *Brown bear attacks on humans in Europe: a synthesis for the period 2000–2015*. Poster presented at the 24th International Conference on Bear Research and Management, Anchorage, Alaska.
- ORAŽEM, V., SMOLEJ, T., TOMAŽIČ, I. 2021. Students' attitudes to and knowledge of brown bears (*Ursus arctos* L.): can more knowledge reduce fear and assist in conservation efforts? *Animals*. 11(7), 1958. <https://doi.org/10.3390/ani11071958>
- PAULE, L. 2015. Estimation of the brown bear population size in Slovakia based on genetic analyses. In: LEŠOVÁ, A., ANTAL, V. (Eds.). *Protection and management of large carnivores in Slovakia*. Banská Bystrica: State Nature Conservation of the Slovak Republic, pp. 73–84.
- ŠIKO, A. 2024. *A policy mix approach to bear management in Slovakia: challenges in the EU context*. Thesis for a master's seminar at Umeå University. [Accessed: 15 December 2025] <https://www.diva-portal.org/smash/get/diva2:1896482/FULLTEXT01.pdf>
- TKÁČOVÁ, N., ŠRUTOVÁ, J., ČERNÁ BOLFÍKOVÁ, B., KORNOVÁ, V., APFELOVÁ, M., KALAŠ, M., ... HULVA, P. [2021]. *Odhad velikosti populace medvěda hnědého (Ursus arctos) na Slovensku analýzou DNA [Estimation of the brown bear (Ursus arctos) population size in Slovakia through DNA analysis]*. Final project report. ŠOP SR/1159/201. [Accessed: 15 December 2025] https://www.sopsr.sk/news/file/00%20%C5%A0%20SR%201159%20201%20-%20Velikost_populace_medved_Slovensko2.pdf
- TREVES, A., JUREWICZ, R., NAUGHTON-TREVES, L., ROSE, R., WILLGING, R., WYDEVEN, A. 2002. Wolf depredation on domestic animals in Wisconsin, 1976–2000. *Wildlife Society Bulletin (1973–2006)*. 30(1), 231–241.
- URBAN, P. 2015. Big three in Slovakia – how perceived by the public? *Quaestiones rerum naturalium*. 2(2), 133–150.
- ZINN, H. C., MANFREDO, M. J., VASKE, J. J., WITTMANN, K. 1998. Using normative beliefs to determine the acceptability of wildlife management actions. *Society & Natural Resources*. 11(7), 649–662.

Contact information

Dušan Janák: dusan.janak@mendelu.cz, dusan.janak@uniba.sk,  <https://orcid.org/0000-0001-8667-2948>
Michal Haring: haring10@uniba.sk,  <https://orcid.org/0009-0008-0896-7044>
Lea Králová: kralova137@uniba.sk