

# Andrius Kučas

## CONTACT INFORMATION

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Social networks: <https://orcid.org/my-orcid?orcid=0000-0003-2158-2794>  
<https://www.linkedin.com/in/andrius-ku%C4%8Das-62b2754/>  
<https://www.researchgate.net/profile/Andrius-Kucas>  
<https://www.scopus.com/authid/detail.uri?authorId=36774597500>  
<https://sciprofiles.com/profile/1256227>  
[https://scholar.google.com/citations?hl=lt&user=c\\_SdGx8AAAAJ](https://scholar.google.com/citations?hl=lt&user=c_SdGx8AAAAJ)

## EDUCATION AND ACADEMIC DEGREE

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2017 – 2021 Vilnius University. Nature Research Centre, Laboratory of Mammalian Ecology. Doctor in Ecology and Environmental Science. Diploma No. VV 002487 Reg. No. 3228.  
2000 – 2003 Vilnius Gediminas Technical University, Faculty of Environmental Engineering. Master in Measurement Engineering. Diploma No. 003327 Reg. No. 3-3119.  
1996 – 2000 Lithuanian University of Agriculture, Faculty of Water Resources and Land Management. Bachelor in Land Management. Diploma No. 007288 Reg. No. 31716.

## DARBO PATIRTIS

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2025 – dabar **Senior Researcher**  
Nature Research Centre  
2025 – dabar **IT Project Manager**  
UAB Demolit  
2000 – 2022 **Independent Expert**  
Agency for Science, Innovation, and Technology  
2018 – 2024 **Scientific Project Officer**  
European Commission, Joint Research Centre  
2017 – 2018 **Biologist**  
Nature Research Centre  
2016 – 2018 **Director**  
UAB Demolit  
2013 – 2016 **Scientific, Technical Project Officer**  
European Commission, Joint Research Centre  
2009 – 2013 **Deputy Director, Chairperson of the Board**  
UAB Apdara  
2005 – 2013 **Junior Researcher**  
Institute of Ecology of Vilnius University  
2002 – 2013 **GIS Analyst**  
UAB Hnit-Baltic  
1998 – 2002 **Technician**  
The State Land Survey Institute

## RESEARCH INTERESTS

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Spatial and temporal ecology, road ecology, geographic information systems and cartography, information systems architecture, conceptual modeling of information, modeling of physical database structures, standardization of information structures and content, analysis of large telemetry and spatial data, spatial network analysis, multi-criteria decision support, ex-ante and ex-post information modeling, application of artificial intelligence algorithms in spatial data analysis, information exchange, and interoperability, dataviz.

## PUBLICATIONS

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*Scientific articles published in journals indexed in „Clarivate Analytics Web of Science“ database (with citation index):*

1. Balčiauskas L., **Kučas, A.**, Balčiauskienė, L. 2024. Trends and characteristics of human casualties in wildlife-vehicle accidents in Lithuania, 2002–2022. *Animals*, 14(10), 1452. DOI: <https://doi.org/10.3390/ani14101452>
2. Balčiauskas L., **Kučas, A.**, Balčiauskienė, L. 2024. Roadkill Patterns on Workdays, Weekends and Long Weekends: Anticipating the Implications of a Four-Day Work Week. *Diversity*, 16(2),84. DOI: <https://doi.org/10.3390/d16020084>
3. Jacobs-Crisioni, C., Dijkstra, L., **Kučas, A.** 2024. Does density foster shorter public transport networks? A network expansion simulation approach. *Land*. 13(1), 77. DOI: <https://doi.org/10.3390/land13010077>
4. Balčiauskas L., **Kučas, A.**, Balčiauskienė, L. 2023. Mammal Roadkills in Lithuanian Urban Areas: A 15-Year Study. *Animals*, 13(20), 3272. DOI: <https://doi.org/10.3390/ani13203272>
5. Balčiauskas, L., Stratford, J., Kučas, A., Balčiauskienė, L. 2023. Lockdown’s Silver Lining? Different Levels of Roadkill during the COVID-19 Times in Lithuania. *Animals*, 13(18), 2918. DOI: <https://doi.org/10.3390/ani13182918>
6. Balčiauskas, L., **Kučas, A.**, Balčiauskienė, L. 2023. The Impact of Roadkill on Cervid Populations in Lithuania. *Forests*. 14 (6), 1224. DOI: <https://doi.org/10.3390/f14061224>
7. **Kučas, A.**, Balčiauskas, L., Lavallo, C. 2023. Identification of Urban and Wildlife Terrestrial Corridor Intersections for Planning of Wildlife-Vehicle Collision Mitigation Measures. *Land*. 12 (4), 758. DOI: <https://doi.org/10.3390/land12040758>
8. Perpiña Castillo, C., van Heerden, S., Barranco, R., Jacobs-Crisioni, C., Kompil, M., **Kučas, A.**, Aurambout, J-P., Batista e Silva, F., Lavallo, C. 2022. Urban-rural continuum: an overview of their interactions and territorial disparities. *Regional Science Policy & Practice*. 15 (4). DOI: <https://doi.org/10.1111/rsp3.12592>
9. Balčiauskas, L., Stratford, J., **Kučas A.**, Balčiauskienė, L. 2022. Factors Affecting Roadkills of Semi-Aquatic Mammals. *Biology*. 11 (5), 748. DOI: <https://doi.org/10.3390/biology11050748>
10. Balčiauskas, L., Stratford, J., Balčiauskienė, L., **Kučas A.** 2021. Roadkills as a Method to Monitor Raccoon Dog Populations. *Animals*. 11 (11), 3147. DOI: <https://doi.org/10.3390/ani11113147>
11. **Kučas, A.**, Balčiauskas, L. 2021. Roadkill-data-based identification and ranking of mammal habitats. *Land*. 10(5), 477; DOI <https://doi.org/10.3390/land10050477>

12. **Kučas, A.**, Balčiauskas, L. 2021. Impact of road fencing on ungulate-vehicle collisions and hotspot patterns. 10 (4), 338; Land. DOI: <https://doi.org/10.3390/land10040338>
13. **Kučas, A.**, Kavalov, B. Lavallo C. 2020. Living cost gap in the European Union member states. Sustainability. 12 (21), 8955; DOI: <https://doi.org/10.3390/su12218955>
14. **Kučas, A.**, Balčiauskas, L. 2020. Temporal patterns of ungulate vehicle collisions in Lithuania. Journal of Environmental Management. 273 (111172). DOI: <https://doi.org/10.1016/j.jenvman.2020.111172>
15. Balčiauskas, L., Stratford, J., Balčiauskienė, L., **Kučas A.** 2020. Importance of professional roadkill data in assessing diversity of mammal roadkills. Transportation Research Part D: Transport and Environment. 87 (102493). DOI: <https://doi.org/10.1016/j.trd.2020.102493>
16. Balčiauskas, L., Wierchowski, J., **Kučas, A.**, Balčiauskienė, L. 2020. Habitat Suitability Based Models for Ungulate Roadkill Prognosis. Animals. 10 (8), 1345. DOI: <https://doi.org/10.3390/ani10081345>
17. Wierchowski, J., **Kučas, A.**, Balčiauskas, L. 2019. Application of least-cost movement modeling in planning wildlife mitigation measures along transportation corridors: case study of forests and moose in Lithuania. Forests. 10 (10), 831. DOI: <https://doi.org/10.3390/f10100831>
18. Tóth, K., **Kučas, A.** 2018. Conformance testing of geographic information. A case study on the Land Parcel Identification System. Computers, Environment and Urban Systems. 70 (2018): 71-83; DOI: <https://doi.org/10.1016/j.compenvurbsys.2018.02.003>
19. Tóth, K., **Kučas, A.** 2016. Spatial information in European agricultural data management. Requirements and interoperability supported by a domain model. Land Use Policy. 57 (2016): 64-79; DOI: <https://doi.org/10.1016/j.landusepol.2016.05.023>
20. **Kučas, A.** 2015. Graph based multi-attribute decision making: impact of road fencing on ecological network. The Baltic Journal of Road and Bridge Engineering. 10 (2): 105-111. DOI: <https://doi.org/10.3846/bjrbe.2015.13>
21. **Kučas, A.**, Trakimas, G., Balčiauskas, L., Vaitkus, G. 2011. Multi-scale analysis of forest fragmentation in Lithuania. Baltic Forestry. 17 (1): 128-135.
22. **Kučas, A.** 2010. Location prioritization by means of multicriteria spatial decision-support systems: a case study of forest fragmentation-based ranking of forest administrative areas. Journal of Environmental Engineering and Landscape Management. 18 (4): 312-320. DOI: <https://doi.org/10.3846/jeelm.2010.36>

***Other reviewed scientific publications (books, books' chapters, collection of articles, articles, textbooks and etc.):***

1. **Kučas, A.**, Kavalov, B., Kompil, M., Maistrali, A., Sulis, P. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #7 Dar es Salaam-Nairobi-Addis Ababa-Berbera/Djibouti, Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC138290.
2. Proietti, P., Kavalov, B., **Kučas, A.**, Kompil, M., Sulis, P., Maistrali, A., and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #5 Libreville-Kribi-Douala-N'Djamena, Jesus, M., G., Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC139568.

3. Maistrali, A., Kavalov, B., Kompil, M., **Kučas, A.**, Proietti, P., Sulis, P., and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #4 Cotonou-Niamey, Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC139570.
4. Kompil, M., Kavalov, B., **Kučas, A.**, Maistrali, A., Sulis, P. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #8 Mombasa-Kisangani, Mazagatos Ateca M. editor(s), European Commission, Ispra, 2024, JRC139568.
5. Sulis, P., Kavalov, B., Kompil, M., **Kučas, A.**, Maistrali, A. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #1 Abidjan-Lagos, Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC139054.
6. Sulis, P., Kavalov, B., **Kučas, A.**, Kompil, M., Maistrali, A. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #12 Lobito-Kolwezi-Lubumbashi/Solwezi-Ndola, Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC138289.
7. Kompil, M., Kavalov, B., **Kučas, A.**, Maistrali, A., Sulis, P., Proietti, P. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #9: Maputo-Gaborone-Walvis Bay-Lüderitz, Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC137053.
8. Maistrali, A., Kavalov, B., Kompil, M., **Kučas, A.**, Sulis, P. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #10 Durban-Lusaka-Lubumbashi, Georgelin, L. editor(s), European Commission, Ispra, 2024, JRC137050.
9. Kavalov, B., Kompil, M., **Kučas, A.**, Proietti, P., Maistrali, A., Sulis, P. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #6 Douala/Kribi-Bangui-Kisangani-Kampala, Georgelin, L. editor(s), European Commission, 2023, JRC135555.
10. Proietti, P., Kavalov, B., **Kučas, A.**, Kompil, M., Maistrali, A., Sulis, P. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #3 Praia-Dakar-Abidjan, Georgelin, L. editor(s), European Commission, 2023, JRC135557.
11. **Kučas, A.**, Kompil, M., Proietti, P., Kavalov, B., Sulis, P., Maistrali, A. and Claassens, J., Strategic Corridors and Urban Systems in Africa - Corridor #2 Abidjan - Ouagadougou, Spirito, L., Lavallo, C., Ciccarelli, P., Oliete Josa, S. and Georgelin, L. editor(s), European Commission, 2023, JRC133208.
12. Proietti, P., Sulis, P., Perpiña Castillo, C., Lavallo, C., Aurambout, J.P., Batista E Silva, F., Bosco, C., Fioretti, C., Guzzo, F., Jacobs, C., Kompil, M., **Kučas, A.**, Pertoldi, M., Rainoldi, A., Scipioni, M., Siragusa, A., Tintori, G. and Woolford, J., New perspectives on territorial disparities, Proietti, P., Sulis, P., Perpiña Castillo, C. and Lavallo, C. editor(s), EUR 31025 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-49485-0 (online), 978-92-76-49484-3 (print), doi: <https://doi.org/10.2760/847996> (online), 10.2760/581071 (print), JRC126033.
13. Baranzelli, C., **Kučas, A.**, Kavalov, B., Maistrali, A., Kompil, M., Oliete Josa, S., Parolin, M. and Lavallo, C., Identification, characterisation and ranking of strategic corridors in Africa, EUR 31069 EN, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-52430-4 (online), doi: <https://doi.org/10.2760/498757> (online), JRC128942.
14. **Kučas, A.** 2021. Evaluation of wildlife–vehicle collision patterns and assessment of mitigation measures, Vilnius University Press, 2021, DOI: <https://www.lvb.lt/permalink/f/10ja22f/ELABAETD104653225>

15. Lavallo, C., Silva, F.B.E., Baranzelli, C., Jacobs-Crisioni, C., Kompil, M., Perpiña Castillo, C., Vizcaino, P., Ribeiro Barranco, R., Vandecasteele, I., Kavalov, B., Aurambout, J.-P., **Kučas, A.**, Siragusa, A., Auteri, D., 2020. The LUISA Territorial Modelling Platform and Urban Data Platform: An EU-Wide Holistic Approach, in: Territorial Impact Assessment. pp. 177–194. DOI: [https://doi.org/10.1007/978-3-030-54502-4\\_10](https://doi.org/10.1007/978-3-030-54502-4_10)
16. OECD/European Commission, 2020. Cities in the World: A New Perspective on Urbanisation, OECD Urban Studies, OECD Publishing, Paris, DOI: <https://doi.org/10.1787/d0efcbda-en>
17. Jacobs, C., Baranzelli, C., Batista E Silva, F., **Kučas, A.**, Perpiña Castillo, C., Lavallo, C., Lembcke, A. and Daniele, F., OECD Regional Outlook 2019. Leveraging Megatrends for Cities and Rural Areas, 2019, JRC116342. DOI: <https://doi.org/10.1787/9789264312838-en>
18. Vandecasteele I., Baranzelli C., Siragusa A., Aurambout J.P. (Eds.), Alberti V., Alonso Raposo M., Attardo C., Auteri D., Barranco R., Batista e Silva F., Benczur P., Bertoldi P., Bono F., Bussolari I., Caldeira S., Carlsson J., Christidis P., Christodoulou A., Ciuffo B., Corrado S., Fioretti C., Galassi M. C., Galbusera L., Gawlik B., Giusti F., Gomez J., Grosso M., Guimarães Pereira Â., Jacobs-Crisioni C., Kavalov B., Kompil M., **Kučas A.**, Kona A., Lavallo C., Leip A., Lyons L., Manca A.R., Melchiorri M., Monforti-Ferrario F., Montalto V., Mortara B., Natale F., Panella F., Pasi G., Perpiña C., Pertoldi M., Pisoni E., Polvora A., Rainoldi A., Rembges D., Rissola G., Sala S., Schade S., Serra N., Spirito L., Tsakalidis A., Schiavina M., Tintori G., Vaccari L., Vandyck T., Vanham D., Van Heerden S., Van Noordt C., Vespe M., Vetter N., Vilahur Chiaraviglio N., Vizcaino P., Von Estorff U., Zulian G., The Future of Cities – Opportunities, challenges and the way forward. EUR 29752 EN, Publications Office, Luxembourg, 2019, ISBN 978-92-76-03848-1, DOI: <https://doi.org/10.2760/364135> , JRC116711.
19. Jacobs-Crisioni, C., **Kučas, A.**, Lavallo, C., Lembcke, A., Ahrend, R., Ageing in regions and cities: high resolution projections for Europe in 2030, EUR 30032 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-76-14649-0, DOI: <https://doi.org/10.2760/716609> , JRC119419.
20. Kavalov B., **Kučas A.**, Batista e Silva F., Kompil M., Aurambout J-P., Lavallo C., A Drive Time-Based Definition of Cross-Border Regions and Analysis of Population Trends, EUR 29859 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-11300-3, DOI: <https://doi.org/10.2760/86464> , JRC116859.
21. **Kučas, A.** 2008. Geografinės informacinės sistemos. Konceptija ir praktinio taikymo gairės tyrimams ir monitoringui: Biota ir globali kaita, II. pp. 108–128. Vilniaus Universiteto Ekologijos Institutas, Vilnius.

## PARTICIPATION IN INTERNATIONAL AND NATIONAL SCIENTIFIC PROGRAMMES AND PROJECTS

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2011 – 2013	<b>Project executive</b> Design and testing of the software „MC-SDSS for ArcGIS“ within the scope of the project, „Peculiarities of dormouse (Gliridae) populations on the north-western periphery of their distribution ranges“ (No. VPI-3.1.-ŠMM-07-K-01-026).
2009– 2010	<b>Project executive</b> Development of internet and desktop GIS software for data collection in the project „Conservation of White Storks (Ciconia ciconia) in Lithuania“, (No. LIFE07 NAT / LT / 000531).

## PARTICIPATION IN SCIENTIFIC CONFERENCES

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### *International scientific conferences:*

1. Kompil M., **Kučas A.**, Maistrali A., Proietti P., Sulis P., Georgelin L., Oliete Josa S., Kavalov B. 2024. A Framework to Evaluate Road Transport Infrastructure Performance and Accessibility in Strategic Corridors and Urban Systems in Africa. 2024 RSA Annual Conference. Global Challenges, Regional Collaboration and the Role of Places. Infrastructure, Transport & Logistics. 11.06.2024-14.06.2024. University of Florence, Department of Architecture, Santa Teresa, Via della Mattonaia, 8, Florence, 50121, Italy.
2. **Kučas A.**, Kompil M., Sulis P., Proietti P., Maistrali A., Oliete Josa S., Georgelin L., Kavalov B. 2024. A Novel Transport and Urban Corridor Identification, Characterisation and Ranking Framework for Identification of Investment Priorities. 2024 RSA Annual Conference. Global Challenges, Regional Collaboration and the Role of Places. Regional Upgrading & Urbanisation in Developing & Emerging Economies. 11.06.2024-14.06.2024. University of Florence, Department of Architecture, Santa Teresa, Via della Mattonaia, 8, Florence, 50121, Italy.
3. **Kučas A.** 2022. Daugiatikšlių erdvinių sprendimų priemonės ir didelių duomenų pagrindu priimti sprendimai. Cartocon 2022 konferencija. Mokslo ir technologijų konferencija Erdviniai duomenys ir žemėlapiai geresnei ateičiai. 25.11.2022-25.11.2022. Vilniaus universiteto, Mokslinės komunikacijos ir informacijos centras. Saulėtekio al. 5, Vilnius, Lietuva.
4. Balčiauskas L., **Kučas A.**, Balčiauskienė L., Stratford J. 2021. Roadkills as a method to monitor raccoon dog populations. CEI 2021 conference. XVI International Interdisciplinary Conference, Current Environmental Issues 2021, 22.09.2021-24.09.2021, University of Bialystok, Bialystok, Poland.
5. **Kučas A.**, Balčiauskas L. 2021. Stapiotemporal Patterns of Ungulate-Vehicle Collisions in Lithuania. EPE 2021 conference. 24th Conference Environment Protection Engineering. 19.03.2021-19.03.2021. Vilnius Tech, Vilnius, Lithuania.
6. **Kučas A.**, Balčiauskas L. 2021. Temporal Patterns of Ungulate-Vehicle Collisions in Lithuania. BTC 2020 conference. 11th Baltic Theriological Conference. 25.01.2021-27.01.2021. Vytautas Magnus University, Kaunas, Lithuania.

7. **Kučas A.**, Balčiauskas L. 2020. Graph-based multi-attribute decision making: Impact of barriers on ecological network. IENE 2020 conference. LIFE LINES – Linear Infrastructure Networks with Ecological Solutions. 09.01.2021-14.01.2021. Évora, Portugal.
8. **Kučas A.**, Balčiauskas L. 2020. How well wildlife fences work? IENE 2020 conference. LIFE LINES – Linear Infrastructure Networks with Ecological Solutions. 09.01.2021-14.01.2021. Évora, Portugal.
9. Aurambout, J-P., **Kučas, A.**, Lavalley, C. 2019. Europe through the lens of the refined Degree of Urbanisation: First insights. ESRA 2019 congress. 59th ERSA's congress. Cities, regions and digital transformations: Opportunities, risks and challenges. 27.08.2019-30.08.2019 in Lyon, France.
10. **Kučas A.**, Batista e Silva, F., Kompil, M., Aurambout, J-P., Kavalov, B., Lavalley, C. 2019. Delineating and characterizing functional cross-border regions in Europe. ESRA 2019 congress. 59th ERSA's congress. Cities, regions and digital transformations: Opportunities, risks and challenges. 27.08.2019-30.08.2019 in Lyon, France.
11. **Kučas A.**, Batista e Silva, F., Kompil, M., Aurambout, J-P., Kavalov, B., Lavalley, C. 2019. Delineating and characterizing functional cross-border regions in Europe. RSA 2019 conference. RSA Annual Conference, Pushing Regions beyond their Borders, 04.06.2019 - 07.06.2019, University de Santiago de Compostela, Santiago de Compostela, Spain.
12. **Kučas A.**, Balčiauskas L. 2019. Seasonal and daily ungulate-vehicle collision variation analysis. ICSB 2019 conference. 3rd international conference on life and environmental sciences Smart Bio. 02.05.2018-04.05.2018. Vytautas Magnus University, Kaunas, Lithuania.
13. **Kučas A.**, Balčiauskas L. 2018. Animal-vehicle collision hotspots and assessment of mitigation measures in Lithuania. IENE 2018 conference. Crossing borders for a greener and sustainable transport infrastructure. 11.09.2018-14.09.2018. Eindhoven, The Netherlands.
14. **Kučas A.**, Balčiauskas L., Tijušas E. 2017. Organization of the hunting information system: old ideas and new start in Lithuania. Jahrestagung der Gesellschaft für Wildtier-und Jagdforschung 2017 Wildtiermanagement im östlichen Mitteleuropa vom 21.04.2017-23.04.2017 in Hohenselchow - Groß Pinnow.
15. Toth, K., **Kučas A.**, Devos W., Loudjani P. Becoming Green and Geospatial. The Common Agricultural Policy of EU after the Reform. Geospatial World Forum and INSPIRE Conference; 25-29 May 2015; Lisbon; Geospatial World Forum, JRC H.6 (Organiser). 2015. JRC99663.

## OTHER

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### *Editorial activities:*

2023	Life, MDPI	Reviewer
2023	European Journal of Wildlife Research, SPRINGER	Reviewer
2022	Animals, MDPI	Reviewer
2021	Journal of Environmental Management, ELSEVIER	Reviewer
2021	International Journal of Geoinformation, MDPI	Reviewer
2020	Remote Sensing, MDPI	Reviewer
2020	Journal of Environmental Management, ELSEVIER	Reviewer
2020	Sustainability, MDPI	Reviewer

### *Science popularisation:*

1. Strategic Corridors for an enhanced and greener EU-Africa connectivity, Publications Office of the European Union, Luxembourg, 2022, ISBN 978-92-76-47127-1, doi: <https://doi.org/10.2760/24385>, JRC128380.
2. Balčiauskas L., Stratford, J., Balčiauskienė, L., **Kučas, A.** Roadkill index indicates declining or cyclical abundance of racoon dog. *Mūsų girios*, 2021, 11: 28 – 30.