

## CURRICULUM VITAE

### ALEXANDER GAVASHELISHVILI

Professor

Institute of Ecology, Ilia State University  
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**CITIZENSHIP:** citizen of Georgia

#### EDUCATION:

Ilia State University  
PhD (Biology, 2009)

Ivane Javakhishvili Tbilisi State University  
Master Diploma (Biology, 1991)  
B.A. (Biology, 1989)

#### WORK EXPERIENCE:

**2006 - Present**

**Institute of Ecology, Ilia State University**  
**Professor:**

*Conducting research on a wide range of species & ecosystems (incl. human population ecology, genetics, ethnoecology & ethnogenesis) all over the Caucasus and the Middle East, using various techniques (GIS analysis, species distribution modeling, remote-sensing, radio-telemetry, landscape genetics, phylogenetics, camera-trapping, aerial surveys of wildlife, etc).*

*Using research results in conservation projects and solutions to evolutionary issues.*

*Teaching multivariate spatial analysis (GIS, remote-sensing, etc) & multivariate statistical analysis to graduates, & biogeography to undergraduates.*

**1994 - 2006**

**Georgian Center for the Conservation of Wildlife (GCCW)**  
**Conservation biologist & GIS analyst:**

*Modeled the distributions of various species and natural resources using GIS, satellite-received telemetry, and remote sensing.*

*Conducted field studies of vultures in the Caucasus and Kazakhstan.*

*Participated in the biodiversity component in EIA of the planned Khudoni Hydro Power Plant.*

*Monitored raptor migration and conducted environmental education along the Black Sea Coast of Georgia.*

*Demonstrated the use of biodiversity data in zoning of Tusheti National Park (Georgia).*

*Planned corridors among Protected Areas Systems in eastern Georgia.*

*Planned Integrated Wetlands Management in Javakheti Plateau of Georgia.*

*Surveyed wildlife in Georgia and the Caucasus.*

*Helped develop eco-tourism in Georgia and the Caucasus.*

*Participated in creation of Caucasus Environmental NGO Network (CENN).*

*Writer and cameraman for the only TV series specifically on Georgian wildlife, broadcast in 1999.*

**2003 - Present**

**Hawk Mountain Sanctuary, PA, USA  
Research associate.**

**1991 - 2002**

**Ivane Javakhishvili Tbilisi State University,  
Department of Biophysics, Researcher:**

*Studied survival and shock proteins of plants at low temperatures.*

*Bred leeches (*Hirudo medicinalis*) and studied the effects of their saliva on human health, in particular on arteriosclerosis & atherosclerosis.*

**1997**

**Smithsonian Department of Zoological Research (Washington DC, USA)  
Smithsonian Migratory Bird Center, Visiting Scholar under IREX program:**

*Assisted in raising awareness of the benefits of shade-grown coffee for wintering forest-adapted birds.*

*Participated in catching, banding and releasing migrating raptors at Cape May Point (NJ).*

**PROFESSIONAL SKILLS:**

**Computer skills:** *Microsoft Office; SPSS; ArcView v.3.3 GIS; ArcGIS 9.3; ERDAS 9.1; QGIS; Photoshop; R-programming; various bioinformatics software for phylogenetic analysis & population genetics; Corel Draw; PageMaker; etc.*

**Biochemical / biophysical methods:** *Electrophoresis, Chromatography, Centrifuging, delayed fluorescence.*

**LANGUAGES:**

**Georgian:** *native*

**English:** *fluent*

**Russian:** *fluent*

**Turkish:** *intermediate reading-writing  
pre-Intermediate speaking  
basic listening comprehension*

**MARITAL STATUS:**

have a wife and two daughters

**INTERESTS:**

Travel, any outdoor activities, horseback riding, folk Music

***Publications:***

***Peer-reviewed papers:***

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- 39 **Gavashelishvili, A.**, Chukhua, M., Sakhltkhutsishvili, K. (2023) The time and place of origin of South Caucasian languages: insights into past human societies, ecosystems and human population genetics. *Scientific Reports* 13(21133). <https://doi.org/10.1038/s41598-023-45500-w>
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- 38 Bazzicalupo, E., Ratkiewicz, M., Seryodkin, I.V., Okhlopov, I., Galsandorj, N., Yarovenko, Y.A., Ozolins, J., Saveljev, A.P., Melovski, D., **Gavashelishvili, A.**, Schmidt, K., Godoy, J.A. (2023) Genome-environment association analyses reveal geographically restricted adaptive divergence across the range of the widespread Eurasian carnivore *Lynx lynx* (Linnaeus, 1758). *Evolutionary Applications* 16(11): 1773-1788. <https://doi.org/10.1111/eva.13570>
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- 37 Metreveli, V., Kreft, H., Akobia, I., Janiashvili, Z., Nonashvili, Z., Dzadzamia, L., Javakhishvili, Z., **Gavashelishvili, A.** (2023) Potential Distribution and Suitable Habitat for Chestnut (*Castanea sativa*). *Forests* 14(10): 2076. <https://doi.org/10.3390/f14102076>
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- 36 Farhadinia, M.S., ...**Gavashelishvili, A.** et al. (2023) Economics of conservation law enforcement by rangers across Asia. *Conservation Letters: e12943*. <https://doi.org/10.1111/conl.12943>
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- 35 Koptekin, D.,...**Gavashelishvili, A.**...et al. (2023) Spatial and temporal heterogeneity in human mobility patterns in Holocene Southwest Asia and the East Mediterranean. *Current Biology*: <https://doi.org/10.1016/j.cub.2022.11.034>
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- 34 Bazzicalupo, E., Lucena-Perez, M., Kleinman-Ruiz, D., Pavlov, A., Trajçe, A., Hoxha, B., Sanaja, B., Gurielidze, Z., Kerdikoshvili, N., Mamuchadze, J., Yarovenko, Y. A., Akkiev, M. I., Ratkiewicz, M., Saveljev, A. P., Melovski, D., **Gavashelishvili, A.**, Schmidt, K., Godoy, J. A. (2022) History, demography and genetic status of Balkan and Caucasian *Lynx lynx* (Linnaeus, 1758) populations revealed by genome-wide variation. *Diversity and Distributions* 00: 1–18. <https://doi.org/10.1111/ddi.13439>
- 
- 33 Darul, R., **Gavashelishvili, A.**, Saveljev, A.P. et al. (2022) Coat Polymorphism in Eurasian Lynx: Adaptation to Environment or Phylogeographic Legacy?. *Journal of Mammalian Evolution*. <https://doi.org/10.1007/s10914-021-09580-7>
- 
- 32 **Gavashelishvili, A.**, Yanchukov, A., Tarkhnishvili, D. Murtskhvaladze, M., Akhvlediani, I. & Kazancı, C. (2021) Landscape genetics and the genetic legacy of Upper Paleolithic and Mesolithic hunter-gatherers in the modern Caucasus. *Scientific Reports* 11 (17985). <https://doi.org/10.1038/s41598-021-97519-6>
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- 31 M. Zafar-ul Islam, **Alexander Gavashelishvili**, Luka Kokiashvili, Ahmed al Boug & Abdullah as Shehri (2021) Modeling the distribution and movement intensity of the Arabian Leopard *Panthera pardus nimr* (Mammalia: Felidae), *Zoology in the Middle East*. <https://doi.org/10.1080/09397140.2021.1908506>
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- 30 Kuemmerle T, Bluhm H, Ghoddousi A, Arakelyan M, Askerov E, Bleyhl B, Ghasabian M, **Gavashelishvili A**, Heidelberg A, Malkhasyan A, Manvelyan K, Soofi M, Yarovenko Yu, Weinberg P, Zazanashvili N (2020) Identifying priority areas for restoring mountain ungulates in the Caucasus ecoregion. *Conservation Science and Practice*. 2020:e276. <https://doi.org/10.1111/csp2.276>
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- 29 Mikeladze, G., **Gavashelishvili, A.**, Akobia, I., Metreveli, V. (2020) Estimation of forest cover change using sentinel-2 multi-spectral imagery in Georgia (The caucasus). *iForest-Biogeosciences and Forestry* 13 (4): 329. <https://doi.org/10.3832/ifor3386-013>
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- 28 Zafar-ul Islam, M., Volmer, R., al Boug, A., Shehri, A.A., **Gavashelishvili, A.** (2020) Modelling the effect of competition for prey and poaching on the population of the Arabian Leopard, *Panthera pardus nimr*, in Saudi Arabia (Mammalia: Felidae). *Zoology in the Middle East* 66 (2): 95-106. <https://doi.org/10.1080/09397140.2020.1757911>
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- 27 Barjadze, Sh., Asanidze, Z., **Gavashelishvili, A.** & Soto-Adames, F. N. (2019) The hypogean invertebrate fauna of Georgia (Caucasus). *Zoology in the Middle East* 65(1): 1-10. <https://doi.org/10.1080/09397140.2018.1549789>
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- 26 Bleyh, B., Arakelyan, M., Askerov, E., Bluhm, H., **Gavashelishvili, A.**, Ghasabian, M., Ghoddousi, A., Heidelberg, A., Khorozyan, I., Malkhasyan, A., Manvelyan, K., Masoud, M., Moqanaki, E.M., Radeloff, V.C., Soofi, M., Weinberg, P., Zazanashvili, N. and Kuemmerle, T. (2018) Assessing niche overlap between domestic and threatened wild sheep to identify conservation priority areas. *Diversity and Distributions*. <https://doi.org/10.1111/ddi.12839>.
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- 25 **Gavashelishvili, A.**, Yarovenko, Y.A., Babayev, E.A., Mikeladze, G., Gurielidze, Z., Dekanoidze, D., Kerdikoshvili, N., Ninua, L., and Paposvili, N. (2018) Modeling the distribution and abundance of eastern tur (*Capra cylindricornis*) in the Caucasus. *Journal of Mammalogy* 99(4): 885–897. <https://doi.org/10.1093/jmammal/gyy056>
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- 24 Tarkhnishvili, D., **Gavashelishvili, A.**, Murtskhvaladze, M., & Latsuzbaia, A. (2016) Landscape Complexity in the Caucasus Impedes Genetic Assimilation of Human Populations More Effectively than Language or Ethnicity. *Human Biology* 88(4): 287-300. <https://doi.org/10.13110/humanbiology.88.4.0287>
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- 23 **Gavashelishvili, A.** & Tarkhnishvili, D. (2016) Biomes and human distribution during the last ice age. *Global Ecology and Biogeography* 25: 563-574.
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- 22 Farhadina, M.S., Farahmand, H., **Gavashelishvili, A.**, Kaboli, M., Karami, M., Khalili, B. & Montazamy, Sh. (2015) Molecular and craniological analysis of leopard, *Panthera pardus* (*Carnivora: Felidae*) in Iran: support for a monophyletic clade in western Asia. *Biological Journal of the Linnean Society* 114(4): 721-736.
- 21 Tarkhnishvili, D., **Gavashelishvili, A.**, Murtskhvaladze, M., Gabelaia, M. & Tevzadze, G. (2014) Human Paternal Lineages, Languages and Environment in the Caucasus. *Human Biology* 86(2): 113-130.
- 20 Tarkhnishvili, D., Murtskhvaladze, M., & **Gavashelishvili, A.** (2013) Speciation in Caucasian lizards: climatic dissimilarity of the habitats is more important than isolation time. *Biological Journal of the Linnean Society* 109: 876–892.
- 19 **Gavashelishvili, A.**, McGrady, M., Ghasabian, M. & Bildstein, K. L. (2012) Movements and habitat use by immature Cinereous Vultures (*Aegypius monachus*) from the Caucasus. *Bird Study* 59: 449-462.
- 18 Tarkhnishvili, D., **Gavashelishvili, A.**, & Mumladze, L. (2012) Palaeoclimatic models help to understand current distribution of Caucasian forest species. *Biological Journal of the Linnean Society* 105: 231-248.
- 17 **Gavashelishvili, A.** & Javakhishvili, Z. 2010. Combining radio-telemetry and random observations to model the habitat of Near Threatened Caucasian grouse *Tetrao mlokosiewiczii*. *Oryx* 44(4): 491-500.
- 16 Murtskhvaladze, M., **Gavashelishvili, A.** & Tarkhnishvili, D. (2010) Geographic and genetic boundaries of brown bear (*Ursus arctos*) population in the Caucasus. *Molecular Ecology* 19: 1829–1841.
- 15 Tarkhnishvili, D., **Gavashelishvili, A.**, Avaliani, A., Murtskhvaladze, M., & Mumladze, L. (2010) Unisexual rock lizard might be outcompeting its bisexual progenitors in the Caucasus. *Biological Journal of the Linnean Society* 101: 447-460.
- 14 Tarkhnishvili, D., Serbinova, I., & **Gavashelishvili, A.** (2009) Modelling the range of Syrian spadefoot toad (*Pelobates syriacus*) with combination of GIS-based approaches. *Amphibia-Reptilia* 30: 401-412.
- 13 **Gavashelishvili, A.** & Lukarevskiy, V. 2008. Modelling the habitat requirements of leopard *Panthera pardus* in west and central Asia. *Journal of Applied Ecology* 45: 579–588.
- 12 Poulakakis, N., Antoniou, A., Mantziou, G., Parmakelis, A., Skartsi, T., Vasilakis, D., Elorriaga, J., De La Puente, J., **Gavashelishvili, A.**, Ghasabyan, M., Katzner, T., McGrady, M., Batbayar, N., Fuller, M., and Natsagdorj, T. (2008) Population structure, diversity, and phylogeography in the near-threatened Eurasian black vultures *Aegypius monachus* (*Falconiformes; Accipitridae*) in Europe: insights from microsatellite and mitochondrial DNA variation. *Biological Journal of the Linnean Society* 95 (4): 859-872.
- 11 Tarkhnishvili, D., Kaya, U., **Gavashelishvili, A.** & Serbinova, S. (2008) Ecological divergence between two evolutionary lineages of the Caucasian salamander: evidence from GIS analysis. *Herpetological Journal* 18: 155–163.
- 10 **Gavashelishvili, A.** & McGrady, M. J. (2007) Radio-satellite telemetry of a territorial Bearded Vulture *Gypaetus barbatus* in the Caucasus. *Vulture News* 56: 4-13.
- 9 **Gavashelishvili, A.** & McGrady, M. J. (2006) Breeding site selection by bearded vulture (*Gypaetus barbatus*) and Eurasian griffon (*Gyps fulvus*) in the Caucasus. *Animal Conservation* 9: 159-170.
- 8 **Gavashelishvili, A.** & McGrady, M. J. (2006) Geographic information system-based modelling of vulture response to carcass appearance in the Caucasus. *Journal of Zoology* 269: 365-372.
- 7 **Gavashelishvili, A.** & McGrady, M. J. (2006) Some results of research on the cinereous vulture *Aegypius monachus* in Georgia. *Vulture News* 54: 4-10.
- 6 **Gavashelishvili, A.**, McGrady, M. J. & Javakhishvili, Z. (2006) Planning the conservation of the breeding population of cinereous vultures (*Aegypius monachus*) in the Republic of Georgia. *Oryx* 40 (1): 1-8.
- 5 McGrady, M. J. & **Gavashelishvili, A.** (2006) Tracking vultures from the Caucasus into Iran. *Podoces* 1 (1/2): 21-26.
- 4 **Gavashelishvili, A.** (2005) Vulture movements in the Caucasus. *Vulture News* 53: 28-29.
- 3 **Gavashelishvili, A.** (2004) Habitat selection by East Caucasian tur (*Capra cylindricornis*). *Biological Conservation* 120: 391-398.
- 2 Gokhelashvili, R., Kerry, P.R. & **Gavashelishvili, L.** (2003) How much do we know about the Caucasian Black Grouse *Tetrao mlokosiewiczii*. *Sandgrouse*, 25 (1): 33-40.
- 1 Maanen, E. van, Goradze, I., **Gavashelishvili, A.** & Goradze, R. (2001) Opinion: Trapping and hunting of migratory raptors in western Georgia. *Bird Conservation International* 11: 77-92.

**Proceedings & non-peer-reviewed papers:**

- 1 **Gavashelishvili, A.** (2009) GIS-based Habitat Modeling of Mountain Ungulate species in the Caucasus Hotspot. Pp: 74-82. *In: Zazanashvili, N. & Mallon, D. (Eds) Status and Protection of Globally Threatened Species in the Caucasus*. Tbilisi: CEPF, WWF. Contour Ltd., 232 pp.

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- 2 **Gavashelishvili, A.** & McGrady, M. J. (2003) Vultures in Georgia. *The Workshop - Conservation of Gyps vultures in Asia* (Ed. by T. Katzner & J. Parry-Jones) pp. 18-19. North American Ornithological Conference 2002, New Orleans.
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- 3 **Gavashelishvili, A.** & McGrady, M.J. (2002) On-going radio-satellite telemetry of a bearded vulture (*Gypaetus barbatus*) in Georgia. *In: LPO Fir* (Ed. Céline Clémente). Proceedings of the International Conference "Conservation of Bearded Vulture populations". Paris. LPO: 222-223.
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- 4 Gokhelasvili, R., **Gavashelishvili, A.**, Javakhishvili, Z. & Azniashvili, L. (2002) Tourism infrastructure planning in Tusheti National Park of Georgia. Conf. proc. Monitoring and Management of Visitor Flows in Recreational and Protected Areas. Bodenkultur University Vienna. 74-77.
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- 5 **Gavashelishvili, A.** & McGrady, M.J. (2000) Preliminary results of a predictive model for breeding site selection by the bearded vulture (*Gypaetus barbatus*) in the Caucasus. Pp: 87-94. *In: Sakoulis, A., M. Probonas & S. Xirouchakis* (Eds.) Proceedings of the 4<sup>th</sup> Bearded Vulture Workshop, Natural History Museum of Crete, University of Crete, Greece.
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- 6 **Gavashelishvili, A.** (1996) The 1996 Census of the White Storks (*Ciconia ciconia*) in Georgia // NABU / Int. Sympos. Proceed on the White Stork. Hamburg.
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- 7 Badridze, J., Bukhnikashvili, A., Tarkhnishvili, D., **Gavashelishvili, A.** et al. (1996) Principal Characteristics of Georgian Biodiversity. *Natura Caucasica / CUNA-Georgica*. Vol.1. No.2 (June).
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**Books:**

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- 1 Galvez, R. A., **Gavashelishvili, L.** & Javakhishvili, Z. (2005) Raptors and Owls of Georgia. GCCW and Buneba Print *Publishing*. Tbilisi. 128 pages.
- 
- 2 **Gavashelishvili, L.** (2005) Vultures of Georgia and the Caucasus. GCCW and Buneba Print *Publishing*. Tbilisi. 96 pages.
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- 3 **Gavashelishvili, L.**, Gokhelasvili, R., Javakhishvili, Z., Tarkhnishvili, D. (2005) A birdwatching guide to Georgia. GCCW and Buneba Print *Publishing*. Tbilisi. 132 pages.
- 
- 4 **Gavashelishvili, L.** & Javakhishvili, Z. (2002) Raptors of Georgia. GCCW & BirdLife International. Tbilisi. 90 pages.
- 
- 5 **Gavashelishvili, A.**, Sultanov, E., Javakhishvili, Z., Kerimov, T., Agaeva, N. & Gumbatova, S. (1999) Ecological Monitoring with the public's participation at sites noted for High Biodiversity and Vulnerability of Ecosystems along Baku-Supsa Oil Pipeline. GCCW. Tbilisi. 80 pages.
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