C.1 CURRICULUM VITAE

Personal information

Name, Surname:	Geta Rîșnoveanu		
Date of birth:	28.07.1964	Sex:	F
Nationality:	Romanian		
Researcher unique identifier(s) (ORCID, Researcher ID etc.):	https://orcid.org/0000-0002-5194-5448 https://www.webofscience.com/wos/author/record/Q-3790-2019		

Education

Year	Faculty/department - University/institution - Country
1999	Ph.D. Freshwater ecology, University of Bucharest, Romania
1990	M.Sc. Biology, Faculty of Biology, University of Bucharest, Romania

Positions - current and previous

Year	Job title – Employer - Country
2007-present	Professor; Supervisor of PhD thesis - University of Bucharest, Romania
2020-present	Director of the Doctoral School of Ecology, University of Bucharest, Romania
2011-2019	Head of the Department of Systems Ecology and Sustainability, University of Bucharest, Romania
2010-2019	Visiting professor, M.Sc. Territorial planning and sustainable development, Lille Institute of Political Studies (Sciences Po) Lille, France
2003-2007	Associate Professor, University of Bucharest, Romania
2000-2003	Lecturer - University of Bucharest, Romania
1990-2000	Assistant professor

Project management experience

Year	Project title - Role – Funder – Budget – link to project webpage
2017-2020	CROSSLINK: *Understanding cross-habitat linkages between blue and green infrastructure to optimize management of biodiversity, ecosystem services and multiple human uses*, Principal investigator Romanian team, 196305 eur, Horizon 2020, ERA-NET COFUND scheme, Biodiversa - BiodivERsA3-2015-49.
2021	People and trees: Băneasa Forest management solutions for sustainable urban development and resilience, Principal investigator, 3000 eur, CIVIS University of Bucharest,
2017-2018	MEEM: Monitoring & Evaluation for Ecosystem Management: Comparing theory & practice across Europe, Romanian team leader, financed under the ALTER-Net High Impact Actions.
2019-2020	MHC: Assessment of environmental impact regarding 17 small hydropower investments, subject to infringement cause no. 2015/4036 - water - micro-hydropower plants in Romania, Project manager UB, 66350 eur, Ministry of Water, Contract no. 33788/2019,.
2015-2016	ProExpert-Promovarea expertizei în evaluarea și monitoringul substanțelor periculoase din mediu, Principal investigator, 348446 eur, Financial Mechanism of the European Economic Area (EEA) 2009-2014, Program RO04 - "Reduction of Hazardous Substances" , contract no. 3450/19.05.2015.

2015-2016	CELDEX: CELLulose Decomposition EXperiment in streams and riparian zones across the Earth's major biomes, Romanian team leader, Ecuadorian National Science Foundation, PROMETEO program.
2007-2009	FARO: Foresight Analysis for Rural areas of Europe, Romanian team leader, 71470 eur, FP VI – EU. Grant agreement ID: 44495
2002-2005	Rivfunction: Integrating Ecosystem Function into River Quality Assessment and Management, Romanian team leader, 137040 eur, FP V - EU
2008-2009	Echo - Balancing modernity and traditions in the development of local communities, Principal investigator, 3000 eur, Embassy of France in Romania,
2005-2008	PROMOTOR: Understanding the role of populations / species in the generation of resources and services as a scientific foundation for biodiversity conservation policies and strategies, Scientific Director, 417000 eur, Romanian National Authority for ScientificResearch, CEEX.
2000 – 2003	Rolul populatiilor de oligochete bentonice in controlul starii trofice a ecosistemelor acvatice din bazinul Dunarii inferioare, Principal investigator, 20300 USD/23000 eur, CNCSIS – T143

Other relevant professional experiences

Year	Description - Role
	Institutional responsibilities/ commissions of trust
2012-2020	National Council for Certification of Titles, Diplomas and University Certificates – member of Environmental Sciences and Engineering Commission (2012-2016) and of Earth Sciences/ Environmental Sciences Commission (2016-2020)
2008-2011	Management of a doctoral studies program: "Financial support for doctoral studies regarding the complexity of nature, environment and human society" (POSDRU/6/1.5/S/24)
2012-2016	Member of the Scientific Committee of the Tara Hategului Dinosaur Geopark
2017-present	Committee of the Romanian River Reconstruction Center
2000	Key expert for the development of the National Strategy for Sustainable Development, financed by UNDP
	Awards and academic recognition
2018-2019	Guest professor at AgroParisTech, Ms.S. Gestion et ingénierie de l'environnement, Paris, France
2018-2019	Visiting professor at University of Natural Resources and Life Sciences (BOKU), Vienna, Austria
2023	University of Bucharest Senate Award for the Best Doctoral Thesis of the Year
2019	Bucharest University Senate Award for the Author/Project/Research Team with the greatest scientific contribution to society, in the field of Life and Earth Sciences
2019	University of Bucharest Senate Award for the Best Doctoral Thesis of the Year
2021	Award of K-Water best oral presentation winners for the papers of my Ph.D. student Holostenco et al., 31st Congress of the International Society of Limnology, SIL 2021, Gwangju, Korea.
2021	Award of K-Water best oral presentation winners for the work of Sargac et al. (I am a co-author), 31st Congress of the International Society of Limnology, SIL 2021, Gwangju, Korea.
2009	Best poster presentation, third place, for the paper Popescu et al., European Federation for Freshwater Science (EFFS), SEFS6
	Membership in academic societies
2009-present	National representative to the European Federation for Freshwater Sciences

2015-prezent	International Association of Danube - member of the Macroinvertebrate expert group
2015-prezent	National Society of Environmental Science and Engineering (SNSIM)
2000 -present	The Romanian Society of Ecology (SRE)
	Organisation of scientific meetings
2009-2023	President of the Organising and Scientific committee for the 6th Symposium for European Freshwater Sciences organised in Romania 2009 and a membre of the Scientific committee of SEFS 7-13 organised in Spain 2011, Germany 2013, Czech Republic 2017, Croatia 2019, Ireland 2021, UK 2023.
2023	Member of the Scientific Committee of the 6th International Conference on Water resources and wetlands.
2013-2018	Member of the Scientific Committee of International Symposium "The Environment and The Industry" (SEMI), each year
2017-2019	Member of the Scientific Committee of Aquatic Biodiversity International Conference
	Review boards, advisory boards
2014-prezent	Procedia Environmental Science, Engeneering and Management (http://www.procedia-esem.eu/edboard.htm)
2010-prezent	Romanian Journal of Biology - Zoology
2007-present	**Supervised PhD students**: Emilia Radu, Ioana Enache (Aquatic biodiversity), Marinela Moldoveanu (Water Quality Assessment), Holostenco Daniela (State of sturgeon population), Teodora Sin (Assessement of the population of large carnivores), 10 ongoing students (3 on Urban ecosystem services, 3 on aquatic –terrestrial linkages, 2 on marine biodiversity, 1 on fish and climate and hydromorphological changes, one on aquatic biodiversity and land use changes)

C.2 Track record of the last 10 years

1. Holostenco, D.N., Ciorpac, M., Firidin,Şirin, Eroglu, O., Memis ̧ D., Paraschiv, M., Honț Ș., Iani M., Tošić K., Taflan E., Porea D., Kersten P., İlhan Aydın I., Suciu R., Gessner J., **Rîșnoveanu** G., Kohlmann K. et al. (2022). Genetic population structure of the critically endangered stellate sturgeon (Acipenser stellatus) in the Black Sea basin: Implications for conservation. Aquatic Conservation: Marine and Freshwater Ecosystems, 32(12), 1926–1939. (**Q1**)
2. Costello, D. M., Tiegs, S. D., Boyero,L., Canhoto, C., Capps, K. A., Danger,M.,… **Rîșnoveanu**, G.,… et al. 2022. Global Patterns and Controls of Nutrient Immobilization on Decomposing Cellulose in Riverine Ecosystems. Global Biogeochemical Cycles, 36, e2021GB007163. (**Q1**)
3. Forio A. E., Burdon F. J., De Troyer N., Lock K., Witing F., Baert L., De Saeyer N., **Rîșnoveanu** G., Popescu C., Kupilas B., Friberg N., Boets P., Johnson R.K., Volk M., McKie B., Goethals P., 2021. A Bayesian Belief Network learning tool integrates multi-scale effects of riparian buffers on stream invertebrates. Science of the Total Environment 810. (**Q1**)
4. Sin T., Andrea Gazzola, Silviu Chiriac, **Rîșnoveanu*** G., 2019. Wolf diet and prey selection in the South-Eastern Carpathian Mountains, Romania. Plos One 14(11):1-15, (**Q2**)
5. Enache, I., Florescu L.I., Moldoveanu M., Moza M. I., Parpală L., Sandu C., Turko P., **Rîșnoveanu** G., Spaak P., 2019. Diversity and distribution of Daphnia across space and time in Danube Delta lakes explained by food quality and abundance. Hydrobiologia 842 (1): 39–54. (**Q2**)
6. Tiegs D.S., D.M. Costello, M.W. Isken, G. Woodward, P.B. McIntyre, M.O. Gessner, E.Chauvet, N.A. Griffiths, A.S. Flecker, …… G. **Rîșnoveanu**, ….J.A. Zwart, 2019. Global patterns and drivers of ecosystem functioning in rivers and riparian zones. Science Advances 2019; 5(1): eaav0486, 1-8. (**Q1**).
7. Waylen A.K., K.L. Blackstock, F.J. Van Hulst, C. Damian, F. Horváth, R.K. Johnson, R. Kanka, M. Külvik, C.J. Macleod, K. Meissner, M. M Oprina-Pavelescu, J.Pino, E. Primmer, G. **Rîșnoveanu**, B. Šatalová, J. Silander, J. Špulerová, M. Suškevičs, J. Van Uytvanck, 2019. Policy-driven monitoring and

evaluation: Does it support adaptive management of socio-ecological systems? Science of the Total Environment, 662, 373-384 (**Q1**)

8. Monchamp, M.E., Enache I., **Rîşnoveanu G.,** Spaak P., Pomati F., Turko P., **2017**. Sedimentary and egg-bank DNA from 3 European lakes reveal concurrent changes in the composition and diversity of cyanobacterial and Daphnia communities. Hydrobiologia 800, 155-182. (**Q2**)
9. **Rîşnoveanu G**., Chiriac G., Moldoveanu M., **2017**. Robustness of the biotic indicators used for classification of ecological status of lotic water bodies: a testing method when the data series are short. Ecological indicators, 76: 170-177. (**Q1**)
10. Chauvet E., Ferreira V., Giller S. P., G. Mckie B., Tiegs D.S., Woodward G., Elosegi A., Dobson M., Fleituch T., Graça A. S. M., Gulis V., Hladyz S., Lacoursiere O.J., Lecerf A., Pozo J., Preda E., Riipinen M., **Rîsnoveanu** G., Vadineanu A., Vought B.-M. L., Gessner O. M., **2016**. Litter decomposition as an indicator of stream ecosystem functioning at local-to-continental scales: insights from the European *RivFunction* project. In Alex J. Dumbrell, Rebecca L. Kordas and Guy Woodward, editors: Large Scale Ecology, Vol 55, AER, UK: Academic Press, 2016, pp. 99-182; (**Q1**)

C.3 Narrative CV

As an ecosystem ecologist and sustainability scientist with over 30 years of research experience, I demonstrated the ability to build up a broad national and international network of collaborators to leverage financial and high-quality human resources (24 national and 23 international projects, being the principal investigator of 15 of them) and to produce a notable track record of high-impact research achievements published in top journals such as Science, Science Advances, Science of the total environment, Aquatic Conservation: Marine and Freshwater Ecosystems, and Global Biogeochemical Cycles. The +100 publications I (co-) authored accumulated +1200 citations (WOS - March 2024), one being highly cited[11].

My research interest grows from investigations of processes and mechanisms at population/species level[1, 4, 12] towards community[4,5,8, 13, 14], ecosystem[8, 9, 15, 16, 17], and landscape/seascape[1, 2, 3, 4, 6, 10, 11, 18, 19] levels. It was based on the systemic approach, from local[5, 12, 16] up to regional[1, 2, 9, 13-16, 20, 22], European[1, 7, 8, 10, 11, 17-19], and global scales[2, 6]. Considering the challenges posed by implementing sustainable development principles, I became increasingly involved in research focused on the value of biodiversity to society and the efficiency of management actions, which provided conceptual broadening and practical solutions for better policy-making[1, 3, 7, 10, 21]. My research focused also on mechanisms involved in the provision of ecosystems services (mostly litter decomposition) and identification of the main driving factors affecting them. I have a long experience in human resource development and training of the decision-makers who are involved in biodiversity conservation and sustainable management. For most of the studies presented I was the principal investigator or the leading researcher of the Romanian team.

Research at local (population/community and ecosystem) scale: One of the most relevant scientific achievements of my Ph.D. research is understanding the impact of eutrophication and the mechanisms of the long-term changes in the structure of the benthic invertebrate communities and their role in providing ecosystem services in the Lower Danube River System. It reveals that over almost two decades, the structure of benthic fauna has been simplified. The population responses were species-specific, significantly influenced by the temperature, oxygen supply in the water body, and the level of eutrophy. For the first time in literature, the life processes of the dominant *P. hammoniensis* were clarified, and the effects of various exogenous and endogenous factors upon these processes were identified[12].

Understanding the energy flow through the Oligochaeta communities, its main driving factors and the functional patterns of response of dominant species to varying trophic conditions over almost two decades made a significant contribution to scientific knowledge[13, 14]. As bottom sediments represent important internal source of nutrients that impact water quality and limit the growth of primary producers, efforts have been made to assess the community contribution to the nutrient cycles, nutrient budget and ecological significance of the

nutrient release from sediments at the ecosystem level. They allowed the publication of the first studies reported in the literature that address such issues based on an ecosystem approach and combined laboratory and field research[15,16]. Although phosphorus is the most responsible nutrient for regulating phytoplankton production in freshwater lakes, we revealed that nitrogen may also be in short supply in highly eutrophic lakes. Moreover, tubificids may keep the eutrophication process at a high level by supplying nitrogen released from sediments through channels created by bioturbation. The novelty, scientific, and applied relevance of such results allowed me to co-author a Danube Delta monography, the first of its kind published in an international language, present in nine catalogs/libraries and held by prestigious research institutes and universities worldwide[20].

After a period of eutrophication, when growth of cyanobacteria (a poor food source for phytoplankton in lakes) was favoured over eukaryotic green algae, the Danube Delta is slowly recovering. While it is known that some Daphnia species can cope with cyanobacteria in their diet, genetic analyses applied to lake sedimentary archives unveil how both changed irreversibly over the past 6–8 decades due to anthropogenic influence on the ecosystems, suggesting that different compartments of the food web covary in a changing environment. Interestingly, the recent re-oligotrophication of the lakes did not reverse the cyanobacterial and Daphnia assemblages to their pre-eutrophication composition and genetic structure[8]. Interestingly, Daphnia proved to be rare in Danube Delta, indicating that it may play a less important role in the food web of lakes than in some other European shallow lakes. We conclude that food quantity and quality partially explain the observed Daphnia abundance and, even if fish predation might be an essential factor in explaining the low densities of Daphnia in Danube Delta lakes, more lake-based quantitative fish data are needed[5].

Research at regional to European (landscape/seascape) scales: Eutrophication, a complex process originating at the river basin scales, was the focus of our extensive research. We extended our investigations upstream to understand better its mechanisms and effects at various spatial and temporal scales. As part of the Rivfunction project, we conducted comprehensive continental-scale field experiments, spanning 100 paired sites in ten Ecoregions. These experiments allowed us to document the performance and mechanisms of a key ecosystem-level process/service (litter decomposition) in response to two types of serious and widespread anthropogenic impacts on European rivers - effects of excessive nutrient loading (eutrophication) and modification of riparian vegetation (land use)[10, 11]. These investigations were complemented by controlled experiments aimed at a mechanistic understanding of process alterations[10, 17-19]. We found that microbes became increasingly important as agents of decomposition relative to invertebrates in streams where deciduous riparian woodlands were replaced by pasture[10, 18-19]. Simple coefficients of breakdown rates on their own often might not be powerful enough as a bioassessment tool for detecting differences related to land use, such as riparian vegetation removal or nutrient pollution. However, shifts in the relative contributions to breakdown by microbial decomposers versus invertebrate detritivores, as revealed by the ratios of their associated breakdown rate coefficients, showed clear responses to human impact and a high potential to be used as functional indicators within the WFD framework[10]. Our findings also suggest that pasture streams might be fundamentally different from their native, ancestral woodland state, with a shift towards greater reliance on algal production, which could have a destabilizing effect on the dynamics of the food web relative to the slower, detrital-based pathways that dominate in woodland streams[18-19]. Results also support that the decomposition of litter mixture (riparian plant diversity) is primarily driven by litter quality and environmental factors rather than by species richness per se. However, the observed consistent decrease in variability of decomposition rate with increasing plant species richness indicates that conservation of riparian tree diversity is essential even when decomposition rates are not greatly influenced by litter mixture[17].

Our extensive research conducted at regional and macro-regional scales on wolf populations in the Eastern Carpathians[4] and sturgeon in the Danube Delta and the Black Sea[1] has yielded significant insights. This research has allowed us to assess their ecological state and identify the effects of anthropogenic factors, detect the consequences of managerial actions, and formulate crucial recommendations for the long-term management and conservation of these species.

Research at global scales: The experiments carried out on a global scale (+1000 river and riparian sites) allowed the highlighting of patterns of variation of ecological processes in relation to latitude (temperature constraints toward the poles and greater roles for other environmental drivers (e.g., nutrient loading) toward the equator) and the different responses of aquatic and riparian systems to climate change[2,6]. These results and data set the stage for unprecedented "next-generation biomonitoring" by establishing baselines to help quantify environmental impacts on ecosystem functioning at a global scale.

Recently, I have been involved in developing and applying conceptual and analytical modeling to understand and assess ecosystem services provided by natural systems in urban areas. Multicriteria assessment of the social capital structure and the perceptions, attitudes, values, and behavior of individuals and social groups toward biodiversity conservation and sustainable use of ecosystem services complete the research picture I approached for the operationalization of the general objective of sustainable developments.

11. Woodward G., M.O. Gessner, P. S. Giller, V. Gulis, S. Hladyz, A. Lecerf, B. Malmqvist, B.G. McKie,S. D. Tiegs, H. Cariss, M. Dobson, A. Elosegi, V. Ferreira, M. A.S. Graça, T. Fleituch, J. O. Lacoursière, M. Nistorescu, J. Pozo, G. **Risnoveanu**, M. Schindler, A. Vadineanu, L. B.-M. Vought, Eric Chauvet, **2012**-Continental-Scale Effects of Nutrient Pollution on Stream Ecosystem Functioning, Science, VOL 336: 1438-1440.
12. **Rîşnoveanu, G.,** A. Vădineanu, **2002**. *Observations on the population dynamics of Potamothrix hammoniensis (Michaelsen, 1901) (Tubificidae, Oligochaeta) in Lake Isacova in the Danube Delta*. Hydrobiologia, 479: 23-30
13. **Rîşnoveanu**, G., Vadineanu A., **2003**. *Long term functional changes within the oligochaeta communities in the Danube Delta*, Hydrobiologia, 506-509: 399-405
14. Vadineanu, A., S. Cristofor, G. Ignat, C. Ciubuc, G. **Rîşnoveanu**, F. Bodescu, N. Botnariuc, 2000. *Structural and Functional Changes within the Benthic Communities of Danube Delta Lakes*, Verh. Internat. Vercin. Limnol., 27(5): 2571-257.
15. Rîşnoveanu, G., C. Postolache, A. Vădineanu, 2004. Ecological significance of nitrogen cycling by tubificid communities in shallow eutrophic lakes of the Danube Delta, Hydrobiologia, 524 (1): 193-202
16. Postolache, Carmen, Geta **Rîşnoveanu**, Angheluta Vădineanu, **2006**. *Nitrogen and phosphorous excretion rates by tubificids from the Prahova River (Romania).* Hydrobiologia, 553: 121-127.
17. Lecerf A., **Rîşnoveanu** G., Popescu C., Gessner M., Chauvet E., **2007**. *Decomposition of diverse litter mixtures in streams.* Ecology 88(1), 219-227.
18. Hladyz S., K. Abjornsson, E. Chauvet, M. Dobson, A. Elosegi, V. Ferreira, T. Fleituch, M.O. Gessner, P.S. Giller, V. Gulis, S.A. Hutton, J.O. Lacoursiere, S. Lamothe, A. Lecerf, B. Malmqvist, B.G. Mckie, M. Nistorescu, E. Preda, M.P. Riipinen, **G. Risnoveanu**, M. Schindler, S.D. Tiegs, L.B.-M. Vought, G. Woodward, **2011**. Stream Ecosystem Functioning in an Agricultural Landscape: The Importance of Terrestrial–Aquatic Linkages. Advances in Ecological Research, vol. 44: 211-276.
19. Hladyz S., S.D. Tiegs, M.O. Gessner, P.S. Giller, G. **Risnoveanu**, E. Preda, M. Nistorescu, M. Schindler, G. Woodward, **2010**. Leaf-litter breakdown in pasture and deciduous woodland streams: a comparison among three European Regions. Blackwell Publishing Ltd, Freshwater Biology, 55:1916–1929.
20. Rîşnoveanu, Geta, 2006. Structure and function of the oligochaeta communities in lentic ecosystems of the Danube Delta. In C. Tudorancea MM., Tudorancea, Danube Delta –Genesis and biodiversity, Backhuys Publishers, Leiden, The Netherlands, pag: 237-261. (ISBN 90-5782-165-6).
21. Rîşnoveanu G., Gunnar Brunborg (coord.), 2016 - Fundamente legislative şi ştiinţifice pentru evaluarea substanţelor chimice. Ghid, Editura Universitară, București, 515 pgs, ISBN 978-606-28-0450-3.
22. Rîşnoveanu, G., Vădineanu, A., 2000, Evaluarea rolului asociaţiilor şi populaţiilor în funcţionarea sistemelor ecologice: Studiu de caz - Oligochetele Acvatice din Dunăre şi Delta Dunării. Ars Docendi/Editura Universităţii Bucureşti, Bucureşti, 240 pgs, (ISBN 973-8118-31-X).