

CURRICULUM VITAE

dr. Mihai PUȘCAȘ

Associate Professor (Conferențiar)

Senior Researcher (CSII)

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<http://www.researcherid.com/rid/C-4689-2012>

<https://scholar.google.ro/citations?user=VaFydREAAAJ&hl=ro>

Personal details

Born: 10 October 1974

Cugir, dep. of Alba

EDUCATION

2016 - **Habilitation for leading research in biology** (Babeș-Bolyai University in Cluj-Napoca)

2008 - **Ph.D. in Biology**, Joseph Fourier Univeristy in Grenoble - France, (supervisors dr. Philippe CHOLER și dr. Serge AUBERT)

- **Ph.D. in Biology**, distinction **Summa cum laudae**, Babeș-Bolyai University in Cluj-Napoca (supervisor dr. Vasile CRISTEA)

1997-1998 - **Master of Science**, Babeș-Bolyai University in Cluj-Napoca, Faculty of Biology and Geology, field Biology (Biocoenology)

1993-1997 - **B.Sc. in Biology**, Babeș-Bolyai University in Cluj-Napoca, Faculty of Biology and Geology

1989-1993 - **Teoretic Secondary School** in Cugir, (dep. of Alba), field Mathematics-Physics

PROFESSIONAL ACTIVITY

2017 - **Associate Professor (Conferențiar)**, Department of Taxonomy and Ecology, Faculty of Biology and Geology, Babeș-Bolyai University in Cluj-Napoca.

2009-present - **Senior Researcher (CSII)**, Al. Borza Botanical Garden, Babeș-Bolyai University in Cluj-Napoca.

2000-2009 - **biologist**, Al. Borza Botanical Garden, Babeș-Bolyai University in Cluj-Napoca.

1997-2000 - high school teacher, *Brassai Samuel* Secondary School, Cluj-Napoca.

FELLOWSHIPS

- **2003** (4 months), **2005** (5 months), **2006** (6 months), **2007** (7 months), **Laboratoire d'Ecologie Alpine (LECA)**, J. Fourier University (Grenoble, France) - PhD grant of the France Embassy in Romania; training in alpine ecology, phylogeography, molecular techniques (AFLP, DNA sequencing), statistics (supervised by de dr. **Philippe CHOLER**, dr. **Pierre TABERLET**, dr. **Ludovic GIELLY**)
- **2012** (3 months) - **Laboratoire d'Ecologie Alpine (LECA)**, J. Fourier University (Grenoble, France) - Post Doc funded by UEFISCDI; training in techniques of species distribution modelling (supervised by dr. **Whilfried THULLER**)
- **2014** (1 month), **2015** (1 month), **2016** (1 month) - **Laboratoire d'Ecologie Alpine (LECA)**, J. Fourier University (Grenoble, France) - fellowships funded by a UEFISCDI project; training in techniques of eDNA extraction, PCRs for metabarcoding, ddRADseq (collaboration with dr. **Pierre TABERLET**).

RESEARCH ACTIVITY

Visibility of the scientific activity

- 34 published papers (23 ISI *Web of Science*) and collaboration to 3 books
- 1204 citations in Google Scholar; Cumulative impact factor = 104.05; h-index = 12

Publications in peer-reviewed journals (*Web of Science*) - selected list

- Hurdu B-I, Escalante T, **Puşcaş M**, Novikoff A, Bartha L, Zimmermann NE, 2016, Exploring the different facets of plant endemism in the South-Eastern Carpathians: a manifold approach for the determination of biotic elements, centres and areas of endemism. *Biological Journal of the Linnean Society*, **119** (3), 649-672, 10.1111/bij.12902, **(Impact Factor: 1.984)**.
- Winkler M, Lamprecht A, Steinbauer K, Hülber K, Theurillat J-P, Breiner F, Choler P, Ertl S, Gutiérrez Girón A, Rossi G, Vittoz P, Akhalkatsi M, Bay C, Benito Alonso J-L, Bergström T, Carranza ML, Corcket E, Dick J, Erschbamer B, Fernández Calzado R, Fosaa AM, Gavilán RG, Ghosn D, Gigauri K, Huber D, Kanka R, Kazakis G, Klipp M, Kollar J, Kudernatsch T, Larsson P, Mallaun M, Michelsen O, Moiseev P, Moiseev D, Molau U, Molero Mesa J, Morra di Cella U, Nagy L, Petey M, **Puşcaş M**, Rixen C, Stanisci A, Suen M, Syverhuset AO, Tomaselli M, Unterluggauer P, Ursu T, Villar L, Gottfried M, Pauli H, 2016, The rich sides of mountain summits – a pan-European view on aspect preferences of alpine plants. *Journal of Biogeography*, **43**, 2261-2273 **(Impact Factor: 3.997)**.
- Geremia RA, **Puşcaş M**, Zinger L, Bonneville J-M, Choler P, 2016, Contrasting microbial biogeographical patterns between anthropogenic subalpine grasslands and natural alpine grasslands. *The New Phytologist*, **209** (3), 1196-207 **(Impact Factor: 7.672)**.

- Jimenez-Mejias P, Hilpold A, Frajman B, **Puşcaş M**, Koop-Man J, Mesterhazy A, Grulich V, Lye KA, Martin-Bravo S, 2014, *Carex cespitosa*: reappraisal of its distribution in Europe, *Willdenowia*, **44**, 327-343 (**Impact Factor: 0.721**).
- Taberlet P, Zimmermann NE, Englisch T, Tribsch A, Holderegger R, Alvarez N, Niklfeld H, Coldea G, Mirek Z, Moilanen A, Ahlmer W, Marsan PA, Bona E, Bovio M, Choler P, Cieslak E, Colli L, Cristea V, Dalmas J-P, Frajman B, Garraud L, Gaudeul M, Gielly L, Gutermann W, Jogan N, Kagalo AA, Korbecka G, Kupfer P, Lequette B, Letz DR, Manel S, Mansion G, Marhold K, Martini F, Negrini R, Nino F, Paun O, Pellicchia M, Perico G, Piekos-Mirkowa H, Prosser F, **Puşcaş M**, Ronikier M, Scheuerer M, Schneeweiss GM, Schonswetter P, Schratt-Ehrendorfer L, Schupfer F, Selvaggi A, Steinmann K, Thiel-Egenter C, van Loo M, Winkler M, Wohlgemuth T, Wraber T, Gugerli F, **IntraBioDiv Consortium**, 2012, Genetic diversity in widespread species is not congruent with species richness in alpine plant communities, *Ecology Letters*, **15**, 1439-1448 (**Impact Factor: 17.949**).
- Puşcaş M** (2012) Distribution and Phytocoenotic Context of *Kobresia simpliciuscula* (Wahlenb.) Mack. in South-Eastern Carpathians, *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, **40** (1), 29-34 (**Impact Factor: 0.547**).
- Pauli H, Gottfried M, Dullinger S, Abdaladze O, Akhalkatsi M, Alonso, JLB, Coldea G, Dick J, Erschbamer B, Calzado RF, Ghosn D, Holten JI, Kanka R, Kazakis G, Kollar J, Larsson P, Moiseev P, Moiseev D, Molau U, Mesa JM, Nagy L, Pelino G, **Puşcaş M**, Rossi G, Stanisci A, Syverhuset AO, Theurillat JP, Tomaselli M, Unterluggauer P, Villar L, Vittoz P, Grabherr G (2012) Recent plant diversity changes on Europe's mountain summits, *Science*, **336**, 353-355 (**Impact Factor: 33.611**).
- Gottfried M, Pauli H, Futschik A, Akhalkatsi M, Barancok P, Alonso JLB, Coldea G, Dick J, Erschbamer B, Calzado MRF, Kazakis G, Krajci J, Larsson P, Mallaun M, Michelsen O, Moiseev D, Moiseev P, Molau U, Merzouki A, Nagy L, Nakhutsrishvili G, Pedersen B, Pelino G, **Puşcaş M**, Rossi G, Stanisci A, Theurillat JP, Tomaselli M, Villar L, Vittoz P, Vogiatzakis I, Grabherr G (2012) Continent-wide response of mountain vegetation to climate change, *Nature Climate Change*, **2**, 111-115 (**Impact Factor: 14.547**).
- Pachschwöll C, **Puşcaş M**, Schönswetter P (2011) Distribution of *Doronicum clusii* and *D. stiriicum* (Asteraceae) in the Alps and Carpathians, *Biologia*, **66** (6), 977-987, (**Impact Factor: 0.827**).
- Gafta D, Roman A, **Puşcaş M**, Şuteu A (2012) Foristic heterogeneity of *Festuca airoides*-dominated grasslands in the Romanian Carpathians, *Plant Biosystems*, **146** (3), 603-613 (**Impact Factor: 1.92**).
- Puşcaş M**, Choler P (2012) A biogeographic delineation of the European Alpine System based on a cluster analysis of *Carex curvula*-dominated grasslands, *Flora*, **207**, 168–178 (**Impact Factor: 1.472**).
- Engler R, Randin CF, Thuiller W, Dullinger S, Zimmermann NE, Araujo MB, Pearman PB, Le Lay G, Piedallu C, Albert CH, Choler P, Coldea G, De Lamo X, Dirnbock T, Gegout J-C, Gomez-Garcia D, Grytnes J-A, Heegaard E, Hoistad F, Nogues-Bravo D, Normand S, **Puşcaş M**, Sebastia M-T, Stanisci A, Theurillat J-P, Trivedi MR, Vittoz P, Guisan A (2011) 21st century climate change threatens mountain flora unequally across Europe. *Global Change Biology*, **17** (7), 2330-2341 doi: 10.1111/j.1365-2486.2010.02393.x (**Impact Factor: 8.044**).
- Coldea G, Stoica A-I, **Puşcaş M**, Ursu T, Oprea A, The IntraBioDiv Consortium (2009) Alpine–subalpine species richness of the Romanian Carpathians and the current conservation status of rare species. *Biodiversity and Conservation* **18**, 1441–1458 (**Impact Factor: 2.365**).

- Puşcaş M**, Taberlet P, Choler P (2008) No positive correlation between species and genetic diversity in European alpine grasslands dominated by *Carex curvula*. *Diversity and Distributions* **14** (5), 852-861 (**Impact Factor: 6.122**).
- Puşcaş M**, Choler P, Tribsch A, Gielly L, Rioux D, Gaudeul M, Taberlet P (2008) Post-glacial history of the dominant alpine sedge *Carex curvula* in the European Alpine System inferred from nuclear and chloroplast markers. *Molecular Ecology* **17** (10), 2417–2429 (**Impact Factor: 6.494**).
- Puşcaş M**, Gafta D, Cristea V (2005) L'analyse éco-coenotique des prairies édifiées par *Carex curvula* All. des Carpates roumaines. *Acta Botanica Gallica* **152**, 497-506 (**Impact Factor: 0.479**).

Research interest

alpine biogeography and ecology, phylogeography, molecular taxonomy, vegetation dynamics and monitoring, conservation biology, herbaceous alpine ecosystems.

International collaborations

dr. **Philippe CHOLER**, dr. **Pierre TABERLET**, dr. **Roberto GEREMIA**, dr. **Wilfried THUILLER**, dr. **Eric COISSAC** (University of Grenoble, France), dr. **Michał RONIQUIER** (Wladyslaw Szafer Institute of Botany, Kraków, Poland), dr. **Patrik MRÁZ** (Charles University in Prague, Czech Republic), dr. **Andreas TRIBSCH** (Univ. Salzburg, Austria), dr. **Antoine GUISAN** (Univ. Lausanne, Switzerland), dr. **Harald PAULI** (Univ. Vienna, Austria), dr. **Peter SCHÖNSWETTER** (Univ. Innsbruck, Austria), dr. **Niklaus E. ZIMMERMANN** (WSL Birmensdorf, Switzerland).

Funded projects

1. project director

- **2015 - BioSAE**, UBB grant to support the excellence in scientific research, (30261/22.01.2015) - *High mountain communities altitude within the European Alpine System: biogeographical and ecological approach*
- **2015-2016 - BioDivMount**: UEFISCDI project - via collaboration programme Romania-France (PN-II-CT-RO-FR-2014-2-0011, no. contract: 773/2014) - *Biogeographical patterns of diversity in high mountain ecosystems in Europe: a multidisciplinary approach*
- **2014-2016 - ODYSSEE**, Proiect UEFISCDI - via collaboration programme Romania-France (PN-II-ID-JRP-RO-FR-2012, nr. contract: 15/01.01.2014) - *Opening new avenues to model the DYNamics of Species aSsemblages by integrating Ecology and Evolution: a case study from the mountain ecosystems of the Alps and the Carpathians*
- **2010-2012** - PD Project CNCSIS (Project Code: PD-405, Contract: 123/29.07.2010): *Integrating phylogeny, phylogeography and distribution modelling in testing alternative biogeographical hypotheses: the alpine complex Carex curvula within the European Alpine System, as a study model*

2. project responsible

- **2008-2011 - Carpatobiodiv** (Project MECT, 32-135/octombrie 2008): *Study of the mountain flora in Romanian Carpathian in order to optimize the genetic and species*

biodiversity conservation strategies (responsible for Partner 1, Babeş-Bolyai University in Cluj-Napoca)

3. member in the research group

a) European Funded Projects

- **2007-2012- *Ecochange*** (FP6- 036866): *Challenges in assessing and forecasting biodiversity and ecosystem changes in Europe* (coord. dr. P. Taberlet, J. Fourier University, Grenoble)
- **2004-2006 - *IntraBioDiv*** (FP6: GOCE-CT-2003-505376): *Tracking surrogates for intraspecific biodiversity: towards efficient selection strategies for the conservation of natural genetic resources using comparative mapping and modelling approaches* (coord. dr. P. Taberlet, J. Fourier University, Grenoble)
- **2000-2002 - *GLORIA Europe*** (FP5: EVK2-2000-00056): *The European dimension of the Global Observation Research Initiative in Alpine Environments (GLORIA) – a contribution to GTOS* (coord. dr. G. Grabherr, Vienna University)

b) other international projects

- **2002-2004 - *Important Plant Areas (IPAs) in Romania*** (PIN-MATRA project, funded by Ministry of Foreign Affairs of the Netherlands, coord. Plantlife International)
- **2001-2003 - *National Grassland Inventory Project Romania*** (PIN-MATRA-00 B.4.21 Project, Ministry of Foreign Affairs of the Netherlands, coord. dr. Peter Veen)
- **2003-2004 - RM/KNIP 03/01 Grant** (funded by Dutch Minister of Agriculture, Nature Management and Fisheries): *Modernization of the “Alexandru Borza” Botanical Garden Seed Bank (Cluj-Napoca, Romania)* (coord. dr. Alexandra ŞUTEU, A. Borza Botanical Garden in Cluj-Napoca)

c) national projects

- **2014-2016 - Project PN-II-PT-PCCA-2013-4-1764** (contract no. 71 din 01/07/2014) – *Innovative biotechnologies for the conservation of endemic and/or endangered Caryophyllaceae in Romania in order to consolidate the Natura 2000 network (TEHNAT)* (director – dr. Victoria Cristea)
- **2013-2014 - Proiect** (POS Mediu Axa 4): *Developing the Management Plan for ROSCI0322 Muntele Şes Natura 2000 site*
- **2013 - Proiect** (POS Mediu Axa 4): *Assessing the state of biodiversity conservation in the site Platoul Vaşcău (ROSCI 0200), in order to develop the conservation and sustainable management plan specific to Natura 2000 sites*
- **2012 - Project SINCRON** (POS Mediu Axa 4): *Developing management plans using an electronic online databases with GIS support (sites Pădurea Repedea-Bârnova, Găina-Lucina and Măgura Târgu Ocna)*
- **2010 - Project CONSHABCAIAN** (POS Mediu Axa 4, ctr. 82449/24 nov. 2009): *Evaluating the conservation status of the habitats of community interest in ROSCI0017 - Caian in order to develop a conservation and sustainable management plan for Natura 2000 sites specific*

- **2008-2010** - Project PN II IDEI cod CNCSIS ID_2272/2009: *The action of Allium plant extract against the germination and growth of some phytopathogenic fungi*, coord. dr. Marcel Pârvu, Babeş-Bolyai University in Cluj-Napoca
- **2007-2010** - **CONEXSITVARPER** (Project MEECT, nr. 31- 008/18.09.2007): *Consolidating the biodiversity by ex situ conservation and the assessment of somaclonal variability by molecular techniques of genomic analysis of endemic or endangered taxa from Natura 2000 sites* (coord. dr. Victoria Cristea, A. Borza Botanical Garden in Cluj-Napoca)
- **2007-2010** - **CONBIODIV** (Project MEECT nr. 31-015/18.09.2007) *The study of spruce and fir forest biodiversity in Natura 2000 protected areas through modern, multidisciplinary methods* (coord. dr. Sorina Fărcaş, Institute of Biological Research in Cluj-Napoca)
- **2007-2010** - **NARDUS** (Project MEECT nr. 31-033/18.09.2007): *Inventory of natural grasslands with high biodiversity in Romania in order to establish the scientific management measures for their conservation* (coord. dr. Jenică Hanganu, National Research Institute “Delta Dunării” Tulcea)
- **2000-2002** - Grant ANSTI - MEC COD B16/2000; A18/2001: *Study on some endemic, rare and vulnerable Plant Species in Gilău-Muntele Mare Mountains* (coord. dr. Vasile Cristea, Babeş-Bolyai University in Cluj-Napoca)
- **2000** - *Biodiversity Conservation Management Project in Romania - Piatra Craiului National Park - biological inventory*

Participating at conferences

a) invited conferences/keynote speaker

Invited conference

- **Puşcaş M**, L'intégration de la diversité biologique à différents niveaux et échelles: l'exemple des communautés alpines en Europe, in: *Écologie des communautés végétales*. Conference 25-27 March 2015 in Grenoble, France.

Keynote speaker

- Coldea G, **Puşcaş M**, The diversity of the alpine-subalpine flora of the South-Eastern Carpathians and the conservation action for the vulnerable and endangered floristic gene pool, în: Swiss Federal Research Institute WSL (eds.) *Biodiversity Conservation – From Genes to Habitats*. Conference 23-24 November 2006 in Davos, Switzerland.

b) 59 participations in national and international conferences (2000-2016)

Refereeing manuscripts for national and international journals

1. national journals

- **Contribuții Botanice**

2. International Journals

- **Molecular Ecology Resources, Botanical Journal of the Linnean Society, Ecological Complexity, Plant Systematics and Evolution**

Conference and workshop organizer

- *Biogeography of the Carpathians: Evolution of Biodiversity in a Spatiotemporal Context, The First Interdisciplinary Symposium*, Kraków (Poland), September 26–28, 2013.

- *Floristic patterns at different organisation and distribution levels*, Cluj-Napoca, Mai 16–18, 2014.

- *International Workshop: Two days with DNA metabarcoding in Cluj-Napoca — Romania*, Cluj-Napoca, Mai 19–20, 2015.

Cluj-Napoca, 27.03.2017

dr. Mihai Pușcaș