

CURRICULUM VITAE – Dr. Dipl. Ing. Ovidiu Paun

Born December 30th, 1976 in Constanta, Romania. Romanian citizenship. Married, two children. Fluent in Romanian, English, German.

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ACADEMIC EMPLOYMENT:

- 09/2008-(08/2010) Marie Curie Postdoctoral Fellow at Royal Botanic Gardens, Kew, UK: „*Genetic and epigenetic consequences of hybridization and polyploidy in Dactylorhiza (Orchidaceae)*”; host M. Chase.
- 09/2006-08/2008 Erwin Schrödinger Postdoctoral Fellow at RBG Kew; host M. Chase.
- 02/2006-08/2006 Postdoc at Univ. Vienna in the EU-project „INTRABIODIV: *Tracking surrogates for intraspecific biodiversity: towards efficient selection strategies for the conservation of natural genetic resources using comparative mapping and modeling approaches*”, headed by P. Taberlet (Univ Joseph Fourier, Grenoble) and H. Niklfeld (Univ. Vienna).
- 12/2002-01/2006 PhD student at Univ. Vienna funded from an Austrian Science Foundation (FWF) project: “*Evolution of apomixis in the Ranunculus cassubicus group*”.
- 06/2002-11/2002 Research assistant in projects financed by FWF at the Univ. Vienna: “*Comparative Intra-specific Phylogeography of Alpine Plants: Pleistocene Refugia, Nunatak Survival, and Postglacial Migration*”, project leader H. Niklfeld and “*Phylogeography of genus Veronica*”, project leader M. Fischer.
- 09/2001-11/2002 Research assistant in a project financed by the Austrian Academy of Science at Univ. Vienna: “*Phylogenetic analyses in the genus Ranunculus based on ITS and matK sequences*”.

EDUCATION:

2001-2005 PhD in Life Sciences at the Univ. Vienna: “*Evolution of apomixis in the Ranunculus cassubicus group*” (T. Stuessy, R. Samuel, E. Hörandl).

1995-2000 MSc in Horticulture at the Univ. Agronomical Sciences Bucharest, Romania.

GRANT SUPPORT/AWARDS:

- 2009: Youth Travel Fund Award for attendance at „*Adaptation Potential in Plants*” (Vienna, Austria). Federation of European Biochemical Societies (FEBS).
- 2008-2010: Marie Curie Intra-European Fellowship (*Genetic and epigenetic consequences of hybridization and polyploidy in Dactylorhiza: Orchidaceae*) at Jodrell, RBG Kew. European Commission on Research, Technological Development and Demonstration.
- 2008: *Royal Society Conference Grant* for attendance at the „*4th International Conference on the Comparative Biology of the Monocotyledons*” (Copenhagen, Denmark). Royal Society, UK.
- 2006-2008: Erwin Schrödinger Postdoctoral Fellowship (*Genetic and epigenetic consequences of allopolyploidization in Dactylorhiza: Orchidaceae*) at Jodrell, RBG Kew. FWF, Austria.
- Award of the *2006 Oral Presentation Prize* from the Systematics Association at „*the Young Systematists’ Forum*”, Natural History Museum, London.
- 2006: Travel costs for an invited lecture at Univ. P. Sabatier, France. Univ. Vienna.
- 2006: Academic Research Collaboration Grant for visits at RBG Kew. British Council.
- 2004, 2005: Conference attendance (in USA and Poland). ÖFG, Austria.
- 2002-2005: Grant for „*Evolution of apomixis in Ranunculus cassubicus complex*” (leader E. Hörandl). FWF, Austria. Role: named PhD student.
- 2002: Grant for „*Phylogenetic analyses in the genus Ranunculus based on ITS and matK sequences*” (leader E. Hörandl). Austrian Academy of Science. Role: named Research assistant.
- 2002: *IAPT Research Grant* for PhD students. International Association for Plant Taxonomy.
- 2001-2002: *Ernst Mach Grant*. ÖAD, Austria.

CURRENT PROFESSIONAL MEMBERSHIPS:

IAPT, International Association for Plant Taxonomy. BSA, Botanical Society of America. ÖGBM, The Austrian Society for Biochemistry and Molecular Biology.

INVITED GUEST LECTURES AT PUBLIC OR SCIENTIFIC INSTITUTIONS:

- **Jodrell Laboratory, Royal Botanic Gardens, Kew, U.K.:** „Evolution of apomixis in *Ranunculus cassubicus complex*”, 14.06.2006.
- **Laboratoire Dynamique de la Biodiversité, Université P. Sabatier, France:** „Evolutionary potentials of apomixis: insights from molecular population studies on the *Ranunculus auricomus complex*”, 02.06.2006.

INVITED CONFERENCE PARTICIPATION:

- Hybridization, polyploidy and epigenetics - „**International Conference on Polyploidy, Hybridization and Biodiversity**”. Palais du Grand Large, Saint Malo, France. May 2009.
- Monocot genomes and genomics - „**The 4th International Conference on the Comparative Biology of the Monocotyledons**”. University of Copenhagen, Denmark, August 2008.
- Parthenogenesis network: “**The paradox of asex: an evaluation**”. Linnaean Society Rooms UK, Sept 2005.

MEDIA COVERAGE ABOUT MY RESEARCH: German newspaper *Frankfurter Allgemeine* (15.04.2008).

TEACHING:

- 2007-2008 Imperial College, London: *Ecological Genetics* (with C. Lexer).
- 2003-2009 Univ. Vienna: *Microsatellites: theory and practice; DNA markers and chromosomes in plant systematics and evolution* (with R. Samuel); *Special breeding systems and their importance for evolution and ecology: asexual reproduction, hybridization, autogamie* (with E. Hörandl).
- 2001 Univ. Agronomical Sciences Bucharest, Romania: *General Botany*.

STUDENT AND VISITOR ADVISING:

- 2009-2007 at the RBG Kew: B. Sayers (guest PhD student, National Botanic Gardens, Glasnevin, Ireland); Dr. Kadri Tali (guest postdoc, Estonia); Dr. K. Tremetsberger (guest postdoc, Univ. Vienna); M. Nissalo (undergraduate student, UK); J. A. Luna (volunteer).
- 2005 at Univ. Vienna: H. Dvorakova (Prag) and J. Mladenkova (Zagreb) - both guest PhD students.

SERVICE AS REVIEWER – SCIENTIFIC JOURNALS:

Australian Systematic Botany, Annals of Botany, Biological Journal of the Linnaean Society, Botanical Journal of the Linnaean Society, Journal of Plant Research, Ecography, Genetica, Molecular Ecology, New Phytologist, Nordic Journal of Botany, Taxon

LIST OF PUBLICATIONS:

REVIEWED INTERNATIONAL JOURNALS [impact factor 2007/citations as January 2009]:

- **Paun O**, Forest F, Fay MF, Chase MW. In press. Hybrid speciation in angiosperms: Parental divergence drives ploidy. *New Phytologist*. [5.25/-]
- Thiel-Egenter C, ..., **Paun O**, ..., IntraBioDiv Consortium (24 authors). 2009. Effects of species traits on the genetic diversity of high-mountain plants: a multi-species study across the Alps and the Carpathians. *Global Ecology and Biogeography* 18: 78-87. [4.44/-]
- **Paun O**, Schönswetter P, Winkler M, IntraBioDiv Consortium, Tribsch A. 2008. Historical divergence versus contemporary gene flow: evolutionary history of the calcicole *Ranunculus alpestris* group (Ranunculaceae) in the European Alps and the Carpathians. *Molecular Ecology* 17: 4263-4275. [5.17/-]
- **Paun O**, Fay MF, Soltis DE, Chase MW. 2007. Genetic and epigenetic alterations after hybridization and genome doubling. *Taxon* 56: 649-656 [*New Trends in Plant Systematics* column]. [2.52/5]
- Terrab A, Talavera S, Arista M, **Paun O**, Stuessy TF, Tremetsberger K. 2007. Genetic diversity and geographic structure at chloroplast microsatellites (cpSSRs) in endangered West Mediterranean firs (*Abies* spp., Pinaceae). *Taxon* 56: 409-416. [2.52/4]
- **Paun O**, Stuessy TF, Hörandl E. 2006. The role of hybridization, polyploidization and glaciation in the origin and evolution of the apomictic *Ranunculus cassubicus* complex. *New Phytologist* 171: 223-236. [5.25/11]
- **Paun O**, Greilhuber J, Temsch EM, Hörandl E. 2006. Patterns, sources and ecological implications of clonal diversity in apomictic *Ranunculus carpaticola*. *Molecular Ecology* 15: 897-910. [5.17/10]
- **Paun O**, Hörandl E. 2006. Evolution of hypervariable microsatellites in apomictic polyploid lineages of *Ranunculus carpaticola*: directional bias at dinucleotide loci. *Genetics* 174: 387-398. [4/4]
- Terrab A, **Paun O**, Talavera S, Tremetsberger K, Arista M, Stuessy TF. 2006. Genetic diversity and population structure in natural populations of Moroccan Atlas cedar (*Cedrus atlantica*; Pinaceae) determined with cpSSR markers. *American Journal of Botany* 93: 1114-1120. [2.51/4]
- **Paun O**, Lehnebach C, Johansson JT, Lockhart P, Hörandl E. 2005. Phylogenetic relationships and biogeography of *Ranunculus* and allied genera (Ranunculaceae) in the Mediterranean region and in the European Alpine System. *Taxon* 54: 911-930. [2.52/9]
- Hörandl E, **Paun O**, Johansson JT, Lehnebach C, Armstrong T, Chen L, Lockhart P. 2005. Phylogenetic relationships and evolutionary traits in *Ranunculus* s.l. (Ranunculaceae) inferred from ITS sequence analysis. *Molecular Phylogenetics and Evolution* 36: 305-327. [3.99/20]
- Schönswetter P, **Paun O**, Tribsch A, Niklfeld H. 2003. Out of the Alps: colonization of Northern Europe by East Alpine populations of the Glacier Buttercup *Ranunculus glacialis*. *Molec. Ecol.* 12: 3373-3381. [5.17/35]

BOOK CHAPTERS:

- **Paun O**, Fay MF, Chase MW. In press. Evolutionary responses driving adaptation in the genomic allopolyploid landscape. In: „*Comparative Biology and Evolution of the Monocotyledons*”. Denmark: Aarhus Univ. Press.
- **Paun O**. In press. Epigenetics and plant evolution. In: *McGraw-Hill Yearbook of Science & Technology 2010*. McGraw-Hill, New York.
- Hörandl E, **Paun O**. 2007. Patterns and sources of genetic diversity in apomictic plants: implications for evolutionary potentials. Pp. 169-194 in: Hörandl E, Grossniklaus U, Sharbel T, eds. *Apomixis: Evolution, Mechanisms and Perspectives*. Ruggell, Liechtenstein: A.R.G. Gantner Verlag [*Regnum Vegetabile* 147].

CURRENTLY IN REVIEW:

- Hörandl E, Greilhuber J, Klimova K, **Paun O**, Temsch E, Emadzadeh K, Hodálová I. Accepted pending revision. Reticulate evolution and taxonomic concepts in the *Ranunculus auricomus* complex (Ranunculaceae): insights from morphological, karyological and molecular data. *Taxon*.
- Alvarez N, ..., **Paun O**, ..., IntraBioDiv Consortium (21 authors). Accepted pending revision. Biogeographic history of alpine plants: soil ecology drives genetic structure. *Ecology Letters*.

POPULAR JOURNALS:

- **Paun O**. 2008. Another scientific conference - anything new in orchid research? *Orchids* (the bulletin of the American Orchid Society).
- **Paun O**. 2007. Orchids in science: a conference report. *Orchids* 76: 22-23.

ABSTRACTS OF CONTRIBUTIONS TO CONFERENCES/SYMPOSIA:

- **Paun O**, Fay MF, Chase MW. 2009. Genetic and epigenetic responses driving adaptation after allopolyploidization in *Dactylorhiza* (Orchidaceae). In: **Adaptation Potential in Plants**. Gregor Mendel Institute, Vienna, Austria, 19-21 March 2009.
- **Paun O**, Fay MF, Chase MW. 2008. Evolutionary responses towards adaptation in the genomic allopolyploid landscape. P. 45 in: **The 4th International Conference on the Comparative Biology of the Monocotyledons**. University of Copenhagen, Denmark, 11-15 August 2008.
- Alvarez N, ..., **Paun O**, ..., IntraBioDiv Consortium (20 authors). 2008. Soil ecology as driver of spatial genetic structure in alpine plants. P. 40 in: **Xth Symposium of the International Organization of Plant Biosystematists**, Vysoke Tatry, Slovakia, 2-4 July 2008.
- **Paun O**, Chase MW, Luna JA, Cowan R & Fay MF. 2008. Evolutionary responses towards adaptation and speciation after allopolyploidization in *Dactylorhiza* (Orchidaceae). P. 32 in: **Xth Symposium of the International Organization of Plant Biosystematists**, Vysoke Tatry, Slovakia, 2-4 July 2008.
- **Paun O**, Fay MF & Chase MW. 2008. Genetic and epigenetic consequences of allopolyploidization in *Dactylorhiza* (Orchidaceae). P. 115 in: **Systematics 2008**, Göttingen, DE, 7-11 April 2008.
- **Paun O**, Fay MF & Chase MW. 2007. Genetic consequences of allopolyploidy in *Dactylorhiza* (Orchidaceae). P. 50 in: **The 6th Biennial Conference of the Systematics Association**, Royal Botanic Gardens, Edinburgh, UK, 28-31 August 2007.
- **Paun O**, Schönswetter P, Winkler M, Tribsch A & IntraBioDiv Consortium. 2007. Evolutionary history of the alpine *Ranunculus alpestris* group in the European Alps and the Carpathians. P. 144 in: **9 Jahrestagung der Gesellschaft für Biologische Systematik**, Naturhistorisches Museum, Vienna, Austria, 20-23 February 2007.
- **Paun O**, Schönswetter P, Winkler M, Tribsch A & IntraBioDiv Consortium. 2006. Evolutionary history of the alpine *Ranunculus alpestris* group in the European Alps and the Carpathians. P. 12 in: **8th Young Systematists' Forum**, Natural History Museum, London, UK, 07 December 2006.
- **Paun O** & Hörandl E. 2006. Origin, diversity and evolutionary potentials of apomixis. P. 4 in: **8th Young Systematists' Forum**, Natural History Museum, London, UK, 07 December 2006.
- **Paun O**, Schönswetter P, Winkler M, Tribsch A & IntraBioDiv Consortium. 2006. Evolutionary history of the *Ranunculus alpestris* group in the European Alps and the Carpathians. P. 36 in: **Biodiversity Conservation - From Genes to Habitats**, Davos, Switzerland, 23-24 November 2006, Abstracts.
- Hörandl E, **Paun O**, Johansson JT, Lehnebach C & Lockhart P. 2006. Phylogenetic relationships and evolutionary traits of *Ranunculus* s.l. (Ranunculaceae) inferred from molecular and morphological studies. P. 49 in: **17th International Symposium Biodiversity and Evolutionary Biology of the German Botanical Society**. Bonn, Germany, 24-28 September 2006.
- **Paun O** & Hörandl E. 2005. Patterns of microsatellite evolution within apomictic lineages of *Ranunculus carpaticola*. P. 50 in: **“The paradox of asex: an evaluation”**. London, UK, 22-24 September 2005.

- **Paun O** & Hörandl E. 2005. Microsatellite evolution within apomictic lineages of *Ranunculus carpaticola*. P. 313. In **10th Congress of the European Society for Evolutionary Biology**, Krakow, Poland, 15-20 August 2005, Abstract Book.
- **Paun O**, Greilhuber J, Stuessy T & Hörandl E. 2005. Hybridization, introgression, polyploidization and the origin of apomictic *Ranunculus cassubicus* complex. **XVII International Botanical Congress**, 17–23 July 2005, Vienna, Austria. Abstracts, p. 496.
- Hörandl E & **Paun O**. 2005. Genetic diversity and the dynamic nature of facultative apomictic complexes: the case of *Ranunculus auricomus*. **XVII International Botanical Congress**, 17–23 July 2005, Vienna, Austria. Abstracts, p. 153.
- **Paun O**, Johansson JT, Lehnebach C, Armstrong T, Chen L, Lockhart P & Hörandl E. 2005. Phylogeny and evolution of *Ranunculus* s.l. (Ranunculaceae). **XVII International Botanical Congress**, 17–23 July 2005, Vienna, Austria. Abstracts, p. 474.
- Lehnebach CA, Lockhart PJ, Garnock-Jones P, Hörandl E, **Paun O**, Ezcurra C & Rivero M. 2005. Achene evolution in the genus *Ranunculus* L. **XVII International Botanical Congress**, 17–23 July 2005, Vienna, Austria. Abstracts, p. 350.
- **Paun O**, Hörandl E, Greilhuber J & Stuessy TF. 2004. Hybridization as the origin of apomixis for a hexaploid population within sexual diploid *Ranunculus carpaticola*. **Botany 2004**, Scientific meeting, 31 Jul – 5 Aug 2004. Snowbird, Utah. Abstracts, p. 136.
- **Paun O** & Hörandl E. 2004. Genetic and reproductive variation and hybrid origin of a hexaploid population within *Ranunculus carpaticola*. **17th Annual Conference of the Ecological Society of Germany, Switzerland and Austria** – Section Plant Population Biology, 19.5.2004 – 23.5.2004. Abstracts, p. 37. Univ. Regensburg.
- Armstrong T, Hörandl E, **Paun O**, Johansson JT, Lehnebach C & Lockhart P. 2004. A molecular phylogeny of *Ranunculus* (Ranunculaceae) and the relationships of Malesian taxa. P. 30. In: **6th International Flora Malesiana Symposium 2004**. Programme & Abstracts, Los Banos, Philippines, 20-24 Sept. 2004.
- **Paun O**, Hörandl E, Johansson JT, Lehnebach C, Armstrong T & Lockhart P. 2004. Phylogenetic relationships of mediterranean Ranunculi (Ranunculaceae). P. 68 in: **“Plant Evolution in Mediterranean climate zones”**, IXth IOPB Meeting in Valencia, 16-19 May 2004, Spain. Botanical Garden of Valencia Univ.
- Hörandl E, **Paun O**, Dobes C, Johansson J, Lehnebach C, Armstrong T & Lockhart P. 2003. Phylogenetic relationships and evolutionary traits in *Ranunculus* s.l. (Ranunculaceae) inferred from DNA sequence analysis. P. 26 in: **Species Plantarum 250 years, Uppsala 22-24 August 2003**, Programme, Abstracts. Uppsala.
- **Paun O**, Toma F & Petra S. 2000. Studies concerning the technology of *Mammillaria prolifera* (Cactaceae). *Scientific Papers, USAMVB, Horticulture, Bucharest* – Serie B, Vol. XLIII: 133-136.