CURRICULUM VITAE (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

CV date	8-10-2023

First name	**Francisco**		
Family name	**Perfectti Álvarez**		
Gender (*)	Male	Birth date (dd/mm/yyyy)	03/02/1967
Social Security, Passport, ID number	23788403D		
e-mail	*fperfect@ugr.es*	WEB: www.ugr.es/~fperfect	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-5551-213X	

(*) Mandatory

A.1. Current position

Position	Professor			
Initial date	30/12/2018			
Institution	Universidad de Granada (UGR)			
Department/Center	Genetics	Facultad de Ciencias -- http://genetica.ugr.es		
Country	Spain		Teleph. number	958249697
Key words	Evolutionary genetics and genomics, Evolutionary biology			

A.2. Previous positions (research activity interuptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
15/04/2004 – 29/12/2018	Profesor Titular (Associate professor), UGR, Spain
01/09/2016 – 31/08/2017	Visiting Scholar, University of California Berkeley, USA
01/02/1999 – 14/04/2004	Profesor Asociado tipo III, UGR, Spain
01/09/1998 – 31/01/1999	Profesor Asociado tipo II, UGR, Spain
01/10/1997 – 31/08/1998	Profesor Asociado tipo I, UGR, Spain
01/01/1997 – 30/09/1997	Becario Postdoctoral (MEC), University of Rochester, USA
01/10/1996 – 31/12/1996	Becario Postdoctoral, UGR, Spain
15/08/1995 – 31/12/1995	Becario Postdoctoral (UGR), University of Rochester, USA
01/01/1995 – 31/05/1995	Becario Becas Puente (UGR), Spain
01/01/1991 – 31/12/1994	Becario FPI (MEC), Universidad de Granada, Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Biological Sciences	Universidad de Granada, Spain	1995
University Expert in Biocomputing	Universidad de Granada, Spain	1993
Bachelor's Degree (Tesina)	Universidad de Granada, Spain	1992
Univ. Expert in Genetic Diagnosis	Universidad de Granada, Spain	1991
Degree in Biological Sciences	Universidad de Granada, Spain	1990

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

I work as a Professor of Genetics at the University of Granada. I completed my Ph.D. in Biological Sciences (Genetics) from the University of Granada in 1995 with a Ph.D. thesis on the characterization of the genetic resources of the fruit tree *Annona cherimola*. In 1995, I moved to the Department of Biology of the University of Rochester (NY, USA) for a postdoctoral stay with Dr. Jack Werren, working on the genetics of speciation in parasitic wasps of the genus *Nasonia*. I returned as Associate Professor to the University of Granada during the 1997/98 academic year. I was a visiting professor at the University of California - Berkeley during the academic year 2016/17.

As an evolutionary geneticist, my research has covered several topics on evolutionary biology (including genetic and ecological aspects), population genetics, and evolutionary genomics. My scientific interests are focused on the genetic bases of phenotypic plasticity and canalization, the analysis of coevolution at both the genomic level (the evolution of *selfish* genetic elements from an "ecology of the genome" perspective) and the ecological level (evolutionary biology of the interaction between pollinators and plants, role of individual-based networks in population dynamics and evolution), as well as on the speciation process and the genetics of adaptation, using animal and plant models. I was recognized with the UGR Award for Scientific Excellence (2012).

I have participated in 25 competitively funded research projects, being PI of seven of them, developing several lines of interdisciplinary research, such as the genetics and evolution of phenotypic plasticity, the speciation process in the face of gene flow, the evolution of individual interaction networks. My scientific output has been published in 112 scientific papers in journals such as Nature, Evolution, Genetics, Heredity, Proceedings of The Royal Society, Chromosoma, Ecology Letters, The American Naturalist, Philosophical Transactions, Trends in Ecology and Evolution, Oikos, New Phytologist, Molecular Ecology, etc.

I am a member of the editorial boards de *Scientific Reports* (2019-) and *BMC Ecology and Evolution* (2021-). I have reviewed scientific proposals for ANEP/AEI (2010, 2012, 2014, 2015, 2016, 2021), the Czech Grant Agency (2011), The University of Naples Federico II (2023), acting as a member of project selection panels (CGL-Biodiversidad, 2005, 2016, 2019, 2023), and have been an evaluator for the FPU program (2018, 2019). I have reviewed manuscript Annals of Botany, Biological Journal of the Linnean Society, Biology Letters, BMC Evolutionary Biology, Cytogenetics and Genome Research, Ecology letters, Euphytica, Evolution, Evolutionary Ecology, Genetica, Heredity, Insect Conservation and Diversity, International Journal of Plant Science, Oecologia, Oikos, Plant Biology, Philippine Agricultural Scientist, PLoS One, Revista Cubana de Biología, The American Naturalist.

I am on the governance board of the UGR's Excellence Unit "Modeling Nature" (www.modelingnature.org), responsible scientist of the research group Genética Evolutiva (BIO-165, Junta de Andalucía), and was co-founder of the research group Evoflor (www.evoflor.org). I am a member of The Society for the Study of Evolution, the Spanish Society of Genetics, and a founding member of the Spanish Society of Evolutionary Biology. I have supervised three postdoctorals, nine TFM/DEA students, and eight Ph.D. students: Pedro Lanzas Quintana (20/12/2021); Carolina Osuna-Mascaró (PhD dissertation 02/10/2020), now in the University of Reno; Javier Valverde (09/06/2017), now in EBD-CSIC; Anja Rösler (18/07/2014), now in Leipzig Medical School; Antonio Jesús Muñoz-Pajares (11/03/2013), now Assistant Professor in UGR; Mohamed Abdelaziz (22/02/2013), now *Profesor Titular* in UGR; Ayub M.O. Oduor (06/06/2011), now Lecturer in the Technical University of Kenya; María Teruel (06/03/2009), now Assistant Professor in UGR.

I teach *Evolutionary Biology* at the undergraduate level (Biology Degree) and several courses at the MSc level (including *Evolutionary Genetics* in the Master of Genetics and Evolution) and the doctoral level (course *Creativity, Integrity, and Communication in Science* at the International Graduate School of the University of Granada). I have participated in 12 Teaching Innovation Projects, two of them awarded, and in several Tutorial Action Plans.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

- Gómez JM, Perfectti F, Armas C, Narbona E, González-Megías A, Navarro L, DeSoto L, Torices R (2020). Within-individual phenotypic plasticity in flowers fosters pollination niche shift. **Nature Communications** 11: 4019
- Reche I, Perfectti F (2020). Promoting individual and collective creativity in science students. **Trends in Ecology and Evolution** 35: 745-748
- Valverde J, Perfectti F, Gómez JM (2019). Pollination effectiveness in a generalist plant: adding the genetic component. **New Phytologist** 223: 354–365. DOI 10.1111/nph.15743
- Osuna-Mascaró C, Rubio de Casas R, Perfectti F (2018). Comparative assessment shows the reliability of chloroplast genome assembly using RNA-seq. **Scientific Reports** 8: 17404. DOI 10.1038/s41598-018-35654-3
- Perfectti F, Gómez JM, González-Megías A, Abdelaziz M, Lorite J (2017). Molecular phylogeny and evolutionary history of *Moricandia* DC (Brassicaceae). **PeerJ** 5: e3964. DOI: 10.7717/peerj.3964
- Gómez, Perfectti F, Lorite J. (2015). The role of pollinators in floral diversification in a clade of generalist flowers. **Evolution** 69: 863–878. DOI 10.1111/evo.12632
- Gómez JM, Perfectti F, Klingenberg CP (2014). The role of pollinator diversity in the evolution of corolla-shape integration in a pollination-generalist plant clade. **Philosophical Transactions B** 369: 20130257: 1-11. DOI 10.1098/rstb.2013.0257
- Teruel M, Ruíz-Ruano F, Marcha JA, Sánchez-Baca A, Cabrero, Camacho JPM, Perfectti F (2014). Disparate molecular evolution of two types of repetitive DNAs in the genome of the grasshopper *Eyprepocnemis plorans*. **Heredity** 112: 531–542. DOI 10.1038/hdy.2013.135
- Muñoz-Pajares AJ, Martínez-Rodríguez L, Teruel M, Cabrero J, Camacho JPM, Perfectti F (2011). A single, recent origin of the accessory B chromosome of the grasshopper *Eyprepocnemis plorans*. **Genetics** 187:853-863. DOI 10.1534/genetics.110.122713
- Gómez JM, Verdú M, Perfectti F. (2010). Ecological interactions are evolutionarily conserved across the entire tree of life. **Nature** 465: 918-921. DOI 10.1038/nature09113.
  Please found a complete list in http://wpd.ugr.es/~fperfect/index.php/publications/

C.2. Congress

I the last ten years (2014-2023), I have participated in 29 communications to scientific congress and workshops (SEG, AEET, SESBE, ESEB and Evolution congresses, B-chromosome conference, Ecoflor, Seminarios de Genética de Poblaciones y Evolución, etc.). Some of them and some invited talks:

- Perfectti F, Gómez JM, Armas C, Narbona E, González-Megías A, Navarro L. The transcriptomic landscape of phenotypic plasticity in *Moricandia*. VIII Congreso de la Sociedad Española de Biología Evolutiva (Comunicación oral). Vigo 2022 (20220202-20220204)
- Perfectti F, Gómez JM, Armas C, Narbona E, González-Megías A, Navarro L, Castro S,Loureiro J. The transcriptomic landscape of flower phenotypic plasticity in *Moricandia*. XLII Congreso de la SEG (Poster). On-line. 2021 (20210614-20210618)
- Perfectti F, Gómez JM, Armas C, Narbona E, González-Megías A, Navarro L, DeSoto L, Torices R. The genetic architecture of the phenotypic plasticity of Moricandia arvensis flowers. VII Congreso de la Sociedad Española de Biología Evolutiva (Poster). Sevilla. 2020 (20200207-20200207)
- Osuna-Mascaró C, Rubio de Casas R, Perfectti F. Hybridization and adaptive introgression in plants: the case of corolla color in Erysimum.VII Congreso de la Sociedad Española de Biología Evolutiva (Comunicación oral). Sevilla. 2020 (20200207-20200207)
- Valverde J, Gómez JM, Perfectti F. The temporal dimension in individual-plant pollination networks. 4º Congreso Ibérico de Ecología (Oral). Coimbra, Portugal. 2015 (20150616-20150619)
- Invited Workshop “From individual to collective creativity in Science” I. Reche & F. Perfectti. XVI Evoflor meeting, Granada, 13/Mar/2019.

- Invited talks “The transition from a student to a scientist” and ”From individual to collective creativity in Science”. I. Reche & F. Perfectti. International School on Modeling Nature, UGR, 24/Sept/2018
- Invited talk “Social network in Plants: good genes or good luck?” - Botany Meeting- University of California Berkeley (05-Mayo-2017).

C.3. Research projects

- *Causas y mecanismos de la plasticidad fenotípica multivariante en Moricandia arvensis.* Ministerio de Ciencia e Innovación - Proyectos de Generación de Conocimiento PID2021-126456NB-C22. Budget: 211.750 €. Dates: 2022-1026. Type of participation: PI.
- *Evolution of phenotypic plasticity in the genus Moricandia*. Junta de Andalucía (Ayudas a proyectos I+D+i Frontera). Ref.: P18-FR- 3641. Budget: 116.849 €. Dates: 2020-2022. Type of Participation: PI.
- *The association of the nectar microbiome with host plant phylogeny in a genus with generalist pollination*. UGR / Junta de Andalucía (Programa Operativo FEDER 2014-2020). Ref.: A-RNM-505-UGR18. Budget: 27.400 €. Dates: 2020-2022. Type de participation: PI.
- *Functional and evolutionary genetics of phenotypic plasticity in Moricandia*. Ministerio de Economia, Industria y Competitividad (Proyectos I+D Excelencia). Ref.: CGL2017-86626-C2-2-P. Budget: 110.000 €. Dates: 2018-2021. Type de participation: PI.
- *Invisible Extinctions: Loss of diversity in arid areas of the Iberian Peninsula as a consequence of the expansion of plant species associated with humans*. Fundación BBVA. Budget: 100.000 €. Dates: 2017-2019. PI: José M. Gómez. Type de participation: Researcher.
- *Infrastructures for the cultivation of plants and insects under controlled conditions*. Ministerio de Economia y Competitividad (Subprograma Estatal de Infraestructuras Científicas y Técnicas y Equipamiento). Ref.: UNGR15-CE-3315. Budget: 199.356,05 €. Dates: 2016-2018. Type de participation: PI.
- *Ecological and genetic processes that produce speciation: the interaction between hybridization, polyploidy and local adaptation in generalist plants*. Ministerio de Economia y Competitividad (Proyectos I+D Excelencia). Ref.: CGL2013-47558-P. Budget: 85.000 €. Dates: 2014- 2017. Type de participation: PI.
- *Implementation of techniques for species identification in incompletely separated lineages: understanding and conserving biodiversity*. Junta de Andalucía (Proyectos de excelencia). Ref.: 2011- RNM-7676. Budget: 100.902,21 €. Dates: 2012-2017 PI: José M. Gómez Reyes. Type de participation: Researcher.
- *Structured Generalization: evolutionary dynamics at fine spatial scales in a generalist system*. Ministerio de Ciencia e Innovación (Proyectos I+D). Ref.: CGL2009- 07015. Budget: 192.390 €. Dates: 2010 - 2013. Type de participation: PI.

C.4. Contracts, technological or transfer merits

- Participation in Science Fairs. Organized by the *Parque de las Ciencias de Granada* (11-May-2013; 12-May-2012)
- Educational and divulgative videos:
  - Navarro L et al. (2021). Phenotypic plasticity and pollinators. Universidad de Vigo-Divulgare. ISAN 0000-0006-119A-0000-X-0000-0000-C. https://vimeo.com/485884273
  - Navarro L et al. (2021). Phenotypic plasticity and evolutionary convergence. ISAN 0000-0006-119F-0000-L-0000-0000-B. https://vimeo.com/539133883