**CURRICULUM VITAE PAU CARNICERO CAMPMANY, PhD**

Date and place of birth: April 12th, 1988; Barcelona (Spain)

Languages: Catalan (native), Spanish (native), English (fluent), German (fluent), French (basic)

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**ACADEMIC AND PROFESSIONAL CAREER**

09/2020 – present Tenure track, **Assistant professor**, University of Innsbruck (Qualifizierungsvereinbarung)

09/2018 – 08/2020 Lise Meitner **Postdoc** researcher in the group Evolutionary Systematics, Department of Botany, University of Innsbruck

11/2016 – 07/2018 **Nature conservation technician** in the NGO Land Stewardship Network of Catalonia (current Network for Nature Conservation, XCN, <https://xcn.cat/es/>)

06/2017 PhD in Terrestrial Ecology

**PhD thesis**: “Evolution, biogeography and systematics of the genus *Cymbalaria* Hill“ (Department of Animal Biology, Plant Biology and Ecology, Autonomous University of Barcelona, and Institute of Botany of Barcelona, supervisors: Mercè Galbany Casals, Llorenç Sáez Gonyalons and Núria Garcia Jacas).

10/2013 – 10/2016 Contract as **research staff in formation** (PIF, Autonomous University of Barcelona), 60 hours teaching/year.

09/2012 Master Degree in Terrestrial Ecology and Biodiversity

**Master thesis**: “Evolution and biogeography of western Mediterranean *Cymbalaria*”

07/2011 Degree in Biology, Autonomous University of Barcelona, 2011

2010 – 2011 Collaboration grant in the Department of Animal Biology, Plant Biology and Ecology, Autonomous University of Barcelona, working in the project: “Morphological and genetic evidence of contemporary intersectional hybridisation in Mediterranean *Helichrysum* (Asteraceae, Gnaphalieae)”

**POSTGRADUATE EDUCATION**

12/2023 Experimental evolution course, University of Veterinary Medicine Vienna, Vienna

06/2022 Workshop on Machine Learning for population genetics, University of Innsbruck, Innsbruck

01/2020 Workshop in population and speciation genomics, Evolution and Genomics, Český Krumlov

08/2019 Model-based inference in Phylogeography - from single species to communities, Workshop, ForBio Research School in Biosystematics, Oslo

03/2019 Species Distribution Modelling course, University of Vienna, Vienna

04/2014 Introduction to Species Distribution Modelling using MaxEnt and ArcGIS, Institute of Botany of Barcelona, Barcelona

07/2014 Postgraduate course Phylogenies and Genealogies of the DNA: Reconstructions and applications, University of Barcelona, Barcelona

**TEACHING**

03/2020 – present 4 hours per week per semester (University of Innsbruck). Courses:

* Bachelor’s programme Biology: Biodiversity of Plants
* Secondary School Teacher Training Programme “Biology and Environmental Protection”: Biodiversity of autochthonous habitats
* Master’s programme Botany: Biogeography, Evolution, Diversity of selected seed plant families, Vegetation Analyses I and II

10/2013 – 10/2016 Contract as research staff in formation (PIF, Autonomous University of Barcelona), 60 hours teaching/year.

**STUDENTS SUPERVISION**

**PhD theses**

1. Teresa Zeni, Role of genome duplication in changing mountain landscapes (University of Innsbruck, ongoing co-supervision with P. Schönswetter and Filip Koláŕ)
2. Clemens Maylandt, Elucidating the evolutionary history and taxonomy of two widespread steppe plants: *Astragalus onobrychis* group and *Astragalus exscapus* (University of Innsbruck, ongoing co-supervision with Peter Schönswetter and Božo Frajman)

**Master theses**

1. Laura Bonet, Evolutionary processes in the colonization of glacier forefields (University of Innsbruck, ongoing co-supervision with Peter Schönswetter)
2. Magdalena Haidegger, Vegetation development and impact of renaturation measures on two bogs in the Nature Park Karwendel (University of Innsbruck, ongoing co-supervision with Konrad Pagitz and Hermann Sonntag)
3. Joelle Kröll, Speciation, introgression and morphological variability in the Pyrenean endemic *Saxifraga pubescens* (University of Innsbruck, co-supervision with Peter Schönswetter, October 2020)
4. Other co-supervised Master theses: “Biogeographic history and systematics of Cymbalaria in the Eastern Mediterranean” (2018, Autonomous University of Barcelona), “Potential distribution modelling of three alpine plants with MaxEnt under current and 2070 future climate conditions” (2018, University of Barcelona) and “Genetic diversity and specific delimitation of the Centaurea alba complex in the Iberian Peninsula” (2017, University of Barcelona)

**Bachelor theses**

Several finished and ongoing in the Bachelor’s programme Biology and the Secondary School Teacher Training Programme “Biology and Environmental Protection”, University of Innsbruck, 2019 – present).

**SELF-ACTIVE ACQUIRED THIRD-PARTY-FUNDS**

1. “Conserving intraspecific diversity in a warmer world: a case study on endemic high-mountain plants of the Pyrenees” (FWF, Lise Meitner Project M 2516-B32), PI Pau Carnicero, PhD, 09/2018 – 08/2020, Austrian Science Fund; € 156,140.
2. “Evolutionary processes in the colonization of glacier forefields”, 2021–2023,Glockner-Öko-Fonds; € 4,000.
3. “Evolutionary consequences of climatic fluctuations for high-elevation plants within a major Southern European refugium – EVOCLIM”, PI Pau Carnicero, PhD, 05/2023 – 04/2025, Tyrolean Science Fund; € 10,000.

**PARTICIPATION IN FUNDED RESEARCH PROGRAMS**

1. “Reconstruction of the Afro-Mediterranean *Rand-Flora* with phylogenetic dating and biogeographic inference” (CGL2009-13322-C03-03/BOS), 2010 – 2012, Ministry of Education and Science, Spanish Government
2. “Population, evolutionary and phylogeographic patterns of the Cardueae (Compositae) in the Mediterranean” (CGL2010-18631/BOS), 2010 – 2013, Ministry of Education and Science, Spanish Government
3. “Support to Research groups (SGR). Plant biodiversity and biosystematics (GreB)” (2014-SGR 514), 2014 – 2018, PI Joan Vallès Xirau, Catalan Government, € 63,000
4. “Insular type alpine radiation in Asia: the case of *Saussurea* and *Jurinea* in the Himalayo-Tibetan plateau and Tian Shan” (CGL2015-66703-P), 2016 – 2019, PI Alfonso Susanna & Jordi López Pujol, Ministry of Education and Science, Spanish Government, € 159,700
5. “Evolutionary and biogeographic history of *Helichrysum* in the Afromontane and Afroalpine archipelagos” (PID2019-105583GB-C22), PI Dr. Mercè Galbany Casals, 06/2020 – 05/2023, Ministerio de Economía y Competitividad, Spanish Government, € 182,710.
6. “Role of genome duplication in changing mountain landscapes” (FWF, P 34092), PI Dr. Peter Schönswetter, 1.5.2021 – 30.4.2025, Austrian Science Fund, € 403,990.
7. “A micro-scale perspective on alpine floras under climate change. Linking observations and models to improve our understanding of the future of European high mountain plants – MICROCLIM” (ERC 883669), PI Prof. Stefan Dullinger, 01/01/21 – 31/12/25, European Research Council (ERC), € 2,493,795
8. “Global observation research initiative in alpine environments – GLORIA-EUROPE”, PI Dr. Harlad Pauli, head of target region S-Alps / Dolomites, long-term observation network
9. “Decolonisation of Natural Sciences in Arctic Research – DARE” (University of Innsbruck), 6/2022 – 10/2023; € 15,000
10. “Action plan for monitoring climate change impact on alpine landscape with scientific and citizen actions – ACTION” (INTERREG Alpine Space, ASP0200171 *under revision*), PI Prof. Graziano Rossi, 05/2023 – 10/2024; € 112,350 (amount requested)

**CONGRESSES**

**Oral communications**

**Carnicero, P.** (November 2022) Elucidating major intraspecific genetic patterns of high-elevation plants of the Pyrenees, in the 3d Simposium of Spanish botany (invited speaker), Barcelona, Spain

**Carnicero, P.**, Rota, F., Casazza, G., Schönswetter, P., Wellstein, C. (September 2022) Mutiple glacial refugia and idiosyncratic postglacial population dynamics of alpine plants in the Dolomites, in the 19th Austrian Botanical Conference

**Carnicero, P.**, Rota, F., Casazza, G., Schönswetter, P., Wellstein, C. (September 2022) Genomic evidence of postglacial expansion from multiple refugia for alpine plants in the Dolomites, in the 9th Italian Society for Evolutionary Biology Congress, Ancona, Italy

**Carnicero, P.**, Dullinger., S. & Schönswetter, P. (June and September 2021) Same glaciers, same bedrock, different responses: comparative phylogeography of three endemic mountain plants in the Pyrenees, in the Evolution Meeting (online) and in the 19th Austrian Botanical Conference (online)

**Carnicero, P.**, Záveská, E. & Schönswetter (July 2019) Elucidating major phylogeographic patterns for alpine plants from the Pyrenees, in the XII international colloquium of Pyreneean – Cantabrian Botany, Girona, Spain

**Carnicero, P.**, Dullinger, S. & Schönswetter (September 2019) Conserving intraspecific diversification in a warmer world – a case study on endemic high-mountain plants of the Pyrenees, in the International Mountain Conference, Innsbruck, Austria

**Invited seminars**

**Carnicero, P.**, Dullinger, S. & Schönswetter (October 2022), Evolutionary history and glacial refugia of high-elevation Pyrenean plants, invited talk for the Sociedad Española de Botánica (SEBOT, online)

**Carnicero, P.**, Dullinger, S. & Schönswetter (January and March 2022), Recent evolution of high elevation plants of the Pyrenees, invited talk in the University of Vienna (Austria) and in the Charles University (Prague, Czech republic).

**Carnicero, P**., Galbany-Casals, M., Schönswetter, P., Fraga, P., Garcia-Jacas, N. & Sáez, L. (2015), Phylogeography of western Mediterranean *Cymbalaria* and systematic implications, invited talk in the Institute of Botany of Barcelona.

**REVIEWER FOR THE JOURNALS**

Alpine Botany –Collectanea Botanica – Flora – Frontiers Plant Science – ORSIS – PeerJ – Plant Systematics and Evolution – Scientific Reports

**PUBLICATIONS**

1. **Carnicero, P.**, Kröll, J., & Schönswetter, P. 2023. Homoploid hybrids are common but evolutionary dead ends, whereas polyploidy is not linked to hybridization in a group of Pyrenean saxifrages. *Molecular Phylogenetics and Evolution*, 180, 107703. <https://doi.org/10.1016/j.ympev.2023.107703>
2. **Carnicero, P.**, Wessely, J., Moser, D., Font, X., Dullinger, S. & Schönswetter, P. 2022. Postglacial range expansion of high-elevation plants is restricted by dispersal ability and habitat specialization. *J. Biogeogr.* 49, 1739-1752. <https://doi.org/10.1111/jbi.14390>. ***Editor’s choice***
3. Porro, F., Orsenigo, S., Abeli, T., Mondoni, A., Corli, A., White, F. J., Lodetti, S., Tomaselli, M., Petraglia, A., Carbognani, M., Gualmini, M., Forte, T. G. W., Erschbamer, B., Nicklas, L., **Carnicero, P.**, Mallaun, M., Unterluggauer, P., Stanisci, A., Giancola, C., … Rossi, G. 2021. Richer, greener, and more thermophilous? – a first overview of global warming induced changes in the Italian alpine plant communities within the new GLORIA ITALIA NETWORK. *Plant Biosyst.* doi: [10.1080/11263504.2021.1992527](https://doi.org/10.1080/11263504.2021.1992527)
4. **Carnicero, P.**, Garcia, N., Llorenç, J., Constantinidis, T., & Galbany-Casals, M. 2021. Disentangling relationships among eastern Mediterranean *Cymbalaria* including description of a novel species from the southern Peloponnese (Greece). *Plant Syst. Evol.* 307, 13. doi:10.1007/s00606-020-01730-3
5. Garcia-Jacas, N., Requena, J., López-Pujol, J., **Carnicero, P.** & Susanna, A. 2020*.* The *Centaurea alba* complex in the Iberian Peninsula: gene flow, introgression, and blurred genetic boundaries, *Plant Syst. Evol.* 306, 43. doi: 10.1007/s00606-020-01669-5
6. **Carnicero, P.**, Schönswetter, P., Garcia-Jacas, N., Sáez, L. & Galbany-Casals, M., 2019. Is there a need for accepting paraphyletic taxa? A case study in the Sardinian endemic *Cymbalaria muelleri* (Plantaginaceae), *Bot. J. Linn. Soc.* 191, 325-338. doi: 10.1093/botlinnean/boz052
7. **Carnicero, P.**, Schönswetter, P., Fraga Arguimbau, P., Garcia-Jacas, N., Sáez, L. & Galbany-Casals, M. 2018. Phylogeography of western Mediterranean *Cymbalaria* (Plantaginaceae) reveals two independent long-distance dispersals and entails new taxonomic circumscriptions. *Sci. Rep.* 8, 18079. doi:10.1038/s41598-018-36412-1
8. Fernández-Mazuecos, M., Blanco-Pastor, J.L., Juan, A., **Carnicero, P.**, Forrest, A., Alarcón, M., Vargas, P. & Glover, B.J. 2019. Macroevolutionary dynamics of nectar spurs, a key evolutionary innovation. *New Phytol.* 222, 1123-1138. doi: 10.1111/nph.15654
9. Herrando-Moraira, S., Calleja, J.A., **Carnicero, P.**, Fujikawa, K., Galbany-Casals, M., Garcia-Jacas, N., Im, H.-T., Kim, S.-C., Liu, J.-Q., López-Alvarado, J., López-Pujol, J., Mandel, J.R., Massó, S., Mehregan, I., Montes-Moreno, N., Pyak, E., Roquet, C., Sáez, L., Sennikov, A., Susanna, A. & Vilatersana, R., 2018. Exploring data processing strategies in NGS target enrichment to disentangle radiations in the tribe Cardueae (Compositae). *Mol. Phylogenet. Evol.* 128, 69–87. doi: 10.1016/J.YMPEV.2018.07.012
10. Herrando-Moraira, S., **Carnicero, P.**, Blanco-Moreno, J.M., Sáez, L., Véla, E., Vilatersana, R. & Galbany-Casals, M. 2017. Systematics and phylogeography of the Mediterranean *Helichrysum pendulum* complex (Compositae) inferred from nuclear and chloroplast DNA and morphometric analyses. Taxon 66: 901-933. <https://doi.org/10.12705/664.7>
11. **Carnicero, P.**, Sáez, L., Garcia-Jacas, N. & Galbany-Casals, M. 2017. Different speciation types meet in a Mediterranean genus: the biogeographic history of *Cymbalaria* (Plantaginaceae). *Taxon* 66: 393-407. <https://doi.org/10.12705/662.7>
12. **Carnicero, P.** & Unzeta, M. 2016. Primera cita de la molsa protegida *Buxbaumia viridis* (Buxbaumiaceae) pels Prepirineus catalans [First report of the protected moss *Buxbaumia viridis* (Buxbaumiaceae) in the Catalan Pre-Pyrenees]. Butlletí de la Inst. Catalana d’Història Nat. 80, 83–85.
13. Sáez, L., Mera, A. G. De, Pyke, S., Pié, G. & **Carnicero, P.** 2015. New data on vascular plants from Montseny massif (northeastern Iberian Peninsula), *Orsis*, 29: 205–230.
14. Galbany-Casals, M., **Carnicero, P.**, Blanco-Moreno, J. M., & Smissen, R. D. 2012. Morphological and genetic evidence of contemporary intersectional hybridisation in Mediterranean *Helichrysum* (Asteraceae, Gnaphalieae). *Plant Biology*, 147: 789-800. <https://doi.org/10.1111/j.1438-8677.2012.00568.x>

**Non-peer-reviewed publications**

Castañé, S., Asensio, N., Baena, O., Fàbrega, V., Navarro, A. & **Carnicero, P.** (2018). Guía práctica: Cómo planificar los proyectos de custodia para adaptarse al cambio climático en las regiones vulnerables de España [Practic guidebook: How to plan land stewardship projects to adapt to climate change in vulnerable regions in Spain]. Xarxa de Custòdia del Territori.

Sáez, L., Pié, G. & **Carnicero, P.** 2017. Catàleg de la flora vascular del Montseny [Catalog of the vascular flora of the Montseny], 238 pp. Diputació de Barcelona and Diputació de Girona.

Rodrigo, J., **Carnicero, P.** et al. (2017) Supporting access to land for farmers in Europe, 159 pp. Erasmus+ project: Accesstoland