

RICARDO PÉREZ-DE LA FUENTE

CURRICULUM VITAE (MAY 2015)

ADDRESS

Harvard University
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Year of birth: 1985

FIELD OF SPECIALIZATION: Paleobiology

AREAS OF INTEREST: Macroevolution, Paleoecology, Paleoethology,
Taphonomy, Phylogenetics, Taxonomy, Arthropods

CURRENT POSITION: Post-Doctoral Fellow in Organismic and Evolutionary
Biology. *Task:* Digitization of the MCZ's fossil insect collection.

EDUCATION

PhD	Earth Sciences <i>University of Barcelona, Spain</i> Dissertation (paper based): "Arthropod paleobiology of the Cretaceous amber from El Soplao (Cantabria, Spain)" Grade: <i>Cum Laude</i> (top Spanish grade) Supervisors: Dr. Xavier Delclòs, Dr. Enrique Peñalver	Sept 2008–Dec 2012
M.Sc.	Paleontology <i>University of Barcelona & Autonomous University of Barcelona, Spain</i> M.Sc. research: "Insect paleobiology of the Miocene lacustrine deposits from La Cerdanya (Spain)" Supervisor: Dr. Xavier Delclòs	Sept 2007–June 2008
B.Sc. (=License)	Biology <i>University of Barcelona, Spain</i> Concentration in Organisms and Systems	Sept 2003–Sept 2007

RESEARCH EXPERIENCE (6)

**Project Participant "TCN – Fossil Insect Collaborative:
A Deep-Time Approach to Studying Diversification and
Response to Environmental Change"** 2013–present
National Science Foundation, USA

Project #: 1305066

Number of participating researchers: 13

Grant participant: “The Cretaceous amber from Spain: a multidisciplinary study - II” 2012–2014

Spanish Ministry of Economy and Competitiveness

Project #: CGL2011-23948/BTE

Number of participating researchers: 14

Grant participant: Research group “Sedimentary Geology” 2009–2013

University Department, Research and Information Society of the Catalanian Government (DURSI)

Project #: 2009SGR-01451

Number of participating researchers: 30

Project Participant “Spiders from Lower Cretaceous ambers: Unravelling the web” July 2012

European Synchrotron Radiation Facility (ESRF), Grenoble, France

Project #: EC-938

Number of participating researchers: 3

Project Participant “Mouthparts in ceratopogonids and mymarommatoids from Lower Cretaceous amber” Oct 2011

European Synchrotron Radiation Facility (ESRF), Grenoble, France

Project #: EC-703

Number of participating researchers: 5

Grant participant: “The Cretaceous amber from Spain: a multidisciplinary study” 2008–2011

Spanish Ministry of Science and Innovation

Project #: CGL2008-00550/BTE

Number of participating researchers: 10

FELLOWSHIPS (2)

APIF Fellowship for Researching Staff Sept 2008 – Sept 2012
University of Barcelona 70.000 \$
 Doctoral fellowship, four years

Fellowship of the Spanish Ministry of Science and Education 2004 – 2007
Spanish Government 8.000 \$
 B.A. Fellowship, awarded three consecutive years

PUBLICATIONS (18)

- Pérez-de la Fuente, R.**, Delclòs, X., Peñalver, E. & Engel, M. 2015, in review. A defensive behavior and plant-insect interaction in Early Cretaceous amber – the case of the immature lacewing *Hallucinochrysa diogenesi*. *Arthropod Structure and Development, Special Volume*.
- Peñalver, E., Arillo, A, **Pérez-de la Fuente, R.**, Riccio, M.L., Delclòs, X, Barrón, E. & Grimaldi, D.A. 2015, accepted. Long-proboscid Flies as Pollinators of Mesozoic Gymnosperms. *Current Biology*.
- Arillo, A., Peñalver, E., **Pérez-de la Fuente, R.**, Delclòs, X., Criscione, J., Barden, P. M., Riccio, M. L. & Grimaldi, D. A. 2015. Long-proboscid brachyceran flies in Cretaceous amber (Diptera: Stratiomyomorpha: Zhangsolvidae). *Systematic Entomology* 40: 242–267.
- Sánchez-García, A., Peñalver, E., **Pérez-de la Fuente, R.** & Delclòs, X. 2014. A rich and diverse tanaidomorphan (Crustacea: Tanaidacea) assemblage associated with Early Cretaceous resin-producing forests in North Iberia: palaeobiological implications. *Journal of Systematic Palaeontology*.
- Peñalver, E. & **Pérez-de la Fuente, R.** 2014. Unearthing the secrets of ancient immature insects. *eLife* 3: e03443. DOI: 10.7554/eLife.03443
- Pérez-de la Fuente, R.**, Saupe, E. E. & Selden, P. A. 2013. New lagonomegopid spiders (Araneae: †Lagonomegopidae) from Early Cretaceous Spanish amber. *Journal of Systematic Palaeontology* 11(5): 531–553.
- Engel, M. S. & **Pérez-de la Fuente, R.** 2012. A New Species of Roach from the Jurassic of India (Blattaria: Mesoblattinidae). *Journal of the Kansas Entomological Society* 85(1): 1–4.
- Pérez-de la Fuente, R.**, Delclòs, X., Peñalver, E., Speranza, M., Wierzchos, J., Ascaso, C. & Engel, M. S. 2012. Early evolution and ecology of camouflage in insects. *Proceedings of the National Academy of Sciences USA* 109(52): 21414–21419.
- Pérez-de la Fuente, R.** Heads, S. W., Hinojosa-Diaz, I. A. & Engel, M. S. 2012. The first record of Protogryllinae from the Jurassic of India (Orthoptera: Protogryllidae). *Journal of the Kansas Entomological Society* 85(1): 53–58.
- Pérez-de la Fuente, R.**, Peñalver, E. & Ortega-Blanco, J. 2012. A new species of the diverse Cretaceous genus *Cretevania* Rasnitsyn, 1975 (Hymenoptera: Evaniidae) from Spanish amber. *Zootaxa* 3514: 70-78.
- Pérez-de la Fuente, R.**, Peñalver, E., Delclòs, X. & Engel, M. S. 2012. Snakefly diversity in Early Cretaceous amber from Spain (Neuropterida: Raphidioptera). *Zookeys* 204: 1–40.
- Pérez-de la Fuente, R.**, Perrichot, V., Ortega-Blanco, J., Delclòs, X. & Engel, M. S. 2012. Description of the male of *Megalava truncata* Perrichot, 2009 (Hymenoptera: Megalyridae) in Early Cretaceous Spanish amber from El Soplao. *Zootaxa* 3274: 29–35.
- Saupe, E. E., **Pérez-de la Fuente, R.**, Selden, P. A., Delclòs, X., Tafforeau, P. & Soriano, C. 2012. New *Orchestina* (Simon 1882) (Oonopidae, Araneae) from

Cretaceous ambers of Spain and France: first spiders imaged using phase-contrast X-ray synchrotron microtomography. *Palaeontology* 55(1): 127–143.

Pérez-de la Fuente, R., Delclòs, X., Peñalver, E. & Arillo, A. 2011. Biting midges (Diptera: Ceratopogonidae) from the Early Cretaceous El Soplao amber (N Spain). *Cretaceous Research* 32: 750–761.

Najarro, M., Peñalver, E., **Pérez-de la Fuente, R.**, Ortega-Blanco, J., Menor-Salván, C., Barrón, E., Soriano, C., Rosales, I., López del Valle, R., Velasco, F., Tornos, F., Daviero-Gomez, V., Gomez, B. & Delclòs, X. 2010. A review of the El Soplao amber outcrop, Early Cretaceous of Cantabria (Spain). *Acta Paleontologica Sinica* 84(4): 959–976.

Pérez-de la Fuente, R., Nel, A., Peñalver, E. & Delclòs, X. 2010. A new Early Cretaceous snakefly (Raphidioptera: Mesoraphidiidae) from El Soplao amber (Spain). *Annales de la Société entomologique de France* 46(1–2): 108–115.

Soriano, C., Archer, M., Azar, D., Creaser, P., Delclòs, X., Godthelp, H., Hand, S., Jones, A., Nel, A., Néraudeau, D., Ortega-Blanco, J., **Pérez-de la Fuente, R.**, Perrichot, V., Saupe, E., Solórzano-Kraemer, M. & Tafforeau, P. 2010. Synchrotron X-ray imaging of inclusions in amber. *Comptes Rendus Palevol* 9(6–7): 361–368.

Najarro, M., Peñalver, E., Rosales, I., **Pérez-de la Fuente, R.**, Daviero-Gomez, V., Gomez, B. & Delclòs, X. 2009. Unusual concentration of Early Albian arthropod bearing amber in the Basque-Cantabrian Basin (El Soplao, Cantabria, Northern Spain): Palaeoenvironmental and palaeobiological implications. *Geologica Acta* 7(3): 363–387.

PAPERS PRESENTED AT PROFESSIONAL MEETINGS (17)

Pérez-de la Fuente, R. & Farrell, B.D. 2014. Digitization of the fossil insect collection from the Museum of Comparative Zoology. The 4th International Paleontological Congress. Mendoza, Argentina. Abstract book: 592.

Pérez-de la Fuente, R., Peñalver, E., Arillo, A., Peris, D., Sánchez-García, A. & Delclòs, X. 2014. Paleobiotic interactions from Early Cretaceous Spanish amber. The 4th International Paleontological Congress. Mendoza, Argentina. Abstract book: 393.

Delclòs, X.; Arillo, A.; Barrón, E.; Dal Corso, J.; Daviero-Gómez, V.; López del Valle, R.; Nel, A.; Ortega-Blanco, J.; Peñalver, E.; **Pérez-de la Fuente, R.**; Peris, D.; Sánchez-García, A.; Solórzano-Kraemer, M.M.; Roghi, G.; Saupe, E. & Selden, P. 2014. The Cretaceous amber from Spain [In Spanish], 65-68 pp. In: Royo-Torres, R.; Verdú, F.J. & Alcalá, L. (Coords.), XXX Jornadas de Paleontología de la Sociedad Española de Paleontología, Teruel, Spain. ¡Fundamental!, 24: 1-282 Teruel.

Peñalver, E.; Arillo, A.; Barrón, E.; Delclòs, X.; **Pérez-de la Fuente, R.**; Peris, D. y Sánchez-García, A. 2014. Spanish amber as a source of paleoecological information [In Spanish]. 153-155 pp. In: Royo-Torres, R.; Verdú, F.J. y Alcalá, L. (Coords.), XXX Jornadas de Paleontología de la Sociedad Española de Paleontología, Teruel, Spain. ¡Fundamental!, 24: 153-155.

- Pérez-de la Fuente, R.**, Peñalver, E., Delclòs, X. & Engel, M.S. 2013. Neuroptera from Early Cretaceous Spanish amber. The 6th International Conference on Fossil Insects, Arthropods and Amber, Byblos, Lebanon. Abstract book: 56-57.
- Pérez-de la Fuente, R.**, Peñalver, E., Delclòs, X., Speranza, M. & Engel, M.S. 2013. *Hallucinochrysa diogenesi*, a trash-carrying chrysopoid larva (Neuroptera) from Early Cretaceous Spanish amber. The 6th International Conference on Fossil Insects, Arthropods and Amber, Byblos, Lebanon. Abstract book: 54-55.
- Pérez-de la Fuente, R.**, Saupe, E. E., Selden, P. A., Soriano, C. & Delclòs, X. 2011. New studies on the spiders from the Early Cretaceous of Spain [In Spanish]. XXVII Jornadas de la Sociedad Española de Paleontología, Sabadell, Barcelona. Abstract Book, Institut Català de Paleontologia Miquel Crusafont, Sabadell, Barcelona: 289–293.
- Saupe, E. E., **Pérez-de la Fuente, R.** & Selden, P. 2011. New fossil palpimanoids from the Early Cretaceous of Spain, with a combined extant/fossil phylogenetic analysis of the superfamily Palpimanoidea. 35th Meeting of the American Arachnological Society, Portland, Oregon, USA. <http://aas.biology.pdx.edu/abstracts.php>
- Soriano, C., Delclòs, X., Ortega-Blanco, J., **Pérez-de la Fuente, R.**, Saupe, E. E. & Tafforeau, P. 2011. The Early Cretaceous amber from Spain and its study using synchrotron light [In Spanish]. XXVII Jornadas de la Sociedad Española de Paleontología, Sabadell, Barcelona. Abstract Book, Institut Català de Paleontologia Miquel Crusafont, Sabadell, Barcelona: 371–375.
- Delclòs, X., Peñalver, E., Soriano, C., Arillo, A., Barrón, E., Daviero-Gomez, V., Gomez, B., López-Del Valle, R., Nel, A., Ortega-Blanco, J., **Pérez-de la Fuente, R.**, Roghi, G., Saupe, E., Selden, P.A. & Tafforeau, P. 2010. Early Cretaceous amber-bearing deposits from Spain. The 5th International Conference on Fossil Insects, Arthropods and Amber, Beijing, China. Abstract book: 121.
- Ortega-Blanco, J., Delclòs, X., Engel, M. S., McKellar, R., Peñalver, E., **Pérez-de la Fuente, R.**, Perrichot, V., Rasnitsyn, A. P. & Soriano, C. 2010. Diversity of hymenopteran families in the Early Cretaceous amber from Spain. The 5th International Conference on Fossil Insects, Arthropods and Amber, Beijing, China. Abstract book: 60.
- Pérez-de la Fuente, R.**, Delclòs, X., Peñalver, E. & Arillo, A. 2010. New biting midges (Diptera: Ceratopogonidae) from the Early Cretaceous Amber of Spain. The 5th International Conference on Fossil Insects, Arthropods and Amber, Beijing, China. Abstract book: 159.
- Peñalver, E., Najarro, M., **Pérez-de la Fuente, R.**, Ortega-Blanco, J., Menor-Salván, C., Barrón, E., Soriano, C., Rosales, I., López-Del Valle, R., Velasco, F., Tornos, F., Daviero-Gomez, V., Gomez, B. & Delclòs, X. 2010. A review of the El Soplao amber outcrop, Early Cretaceous of Cantabria (Spain). The 5th International Conference on Fossil Insects, Arthropods and Amber, Beijing, China. Abstract book: 158.
- Soriano, C., Delclòs, X., Ortega-Blanco, J., Peñalver, E., **Pérez-de la Fuente, R.**, Saupe, E., Tafforeau, P. 2010. Spanish Amber Project in the ESRF (European

Synchrotron Radiation Facility, France). The 5th International Conference on Fossil Insects, Arthropods and Amber, Beijing, China. Abstract book: 69.

Delclòs, X., Peñalver, E., Soriano, C., Arillo, A., Nel, A., Selden, P., Roghi, G., Gomez, B., López del Valle, R., Barrón, E., Daviero-Gomez, V., Ortega-Blanco, J. & **Pérez-de la Fuente, R.** 2009. Amber-bearing deposits from the Early Cretaceous of Spain palaeobiology and sedimentary environments. 10th International Symposium on Mesozoic Terrestrial Ecosystems and Biota, Teruel. UAM Editions, abstract book: 193–195.

Ortega-Blanco, J., Delclòs, X., Peñalver, E. & **Pérez-de la Fuente, R.** 2009. Wasps (Insecta: Hymenoptera) from the Early Cretaceous amber from Spain. 10th International Symposium on Mesozoic Terrestrial Ecosystems and Biota, Teruel. UAM Editions, Abstract book: 55–57.

Pérez-de la Fuente, R., Delclòs, X., Peñalver, E., López del Valle, R., Ortega-Blanco, J. & Soriano, C. 2009. A first approach to the fossil arthropodofauna of the Early Cretaceous amber from El Soplao (Cantabria, Spain). 10th International Symposium on Mesozoic Terrestrial Ecosystems and Biota, Teruel. UAM Editions, Abstract book: 49–51.

INVITED TALKS (2)

Pérez-de la Fuente, R. 2014. Fossil insects. Learning about the past. Monthly meeting seminar. Cambridge Entomological Club. www.entclub.org

Pérez-de la Fuente, R. 2011. On the other side of amber [In Spanish]. XII Jornadas del Grupo Ibérico de Aracnología; Plentzia, Bilbao, Spain. Abstract Book: 16.

WORKSHOPS ATTENDED

Integrated Digitized Biocollections' (iDigBio) workshop on Paleontology Digitization	2013
<i>New Haven, Connecticut, USA</i>	
Duration: 23 rd – 25 th September	

SIGNIFICANT GRANTS (3)

APIF's travel and accommodation grant for carrying out a stay in a foreign institution	2012
<i>University of Barcelona</i>	4500 \$
APIF's travel and accommodation grant for carrying out a stay in a foreign institution	2011
<i>University of Barcelona</i>	4500 \$

“Agustí Pedro i Pons” Foundation travel and accommodation grant for carrying out a stay in a foreign institution 2010
Agustí Pedro i Pons Foundation, Barcelona 4000 \$

SIGNIFICANT AWARDS

X Edition Ramon Margalef secondary award for the best science paper derived from a PhD carried out at the University of Barcelona during the previous four years (*Early evolution and ecology of camouflage in insects, PNAS*) 2014
 2500 \$

LONG STAYS IN RESEARCH INSTITUTIONS (3)

Geology Department / Entomology Department 2012
University of Kansas
Kansas, USA

Studied neuropterids and hymenopterans (with Dr. Michael S. Engel) and spiders (with Ms. Erin E. Saupe and Dr. Paul A. Selden) from Spanish amber.

Duration: Two months (04/06/2012 - 06/10/2012)

Funding: University of Barcelona (APIF fellowship)

Geology Department / Entomology Department 2011
University of Kansas
Kansas, USA

Studied neuropterids and hymenopterans (with Dr. Michael S. Engel) and spiders (with Ms. Erin E. Saupe and Dr. Paul A. Selden) from Spanish amber.

Duration: Three months (04/07/2011 - 07/02/2011)

Funding: University of Barcelona (APIF fellowship)

Geology Department / Entomology Department 2010
University of Kansas
Kansas, USA

Studied neuropterids (with Dr. Michael S. Engel) and spiders (with Ms. Erin E. Saupe and Dr. Paul A. Selden) from Spanish amber.

Duration: Three months (05/01/2010 - 08/01/2010)

Funding: Agustí Pedro i Pons Foundation (Barcelona)

SHORT STAYS IN RESEARCH INSTITUTIONS (7)

European Synchrotron Radiation Facility (ESRF) July 2012
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
ESRF project “Spiders from Lower Cretaceous ambers: Unravelling the web”
Duration: 9 days. Funding: ESRF.

European Synchrotron Radiation Facility (ESRF) July 2011
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
Duration: 7 days. Funding: ESRF.

European Synchrotron Radiation Facility (ESRF) Nov 2010
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
Duration: 13 days. Funding: ESRF.

European Synchrotron Radiation Facility (ESRF) April 2010
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
Duration: 8 days. Funding: ESRF.

European Synchrotron Radiation Facility (ESRF) Feb 2010
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
Duration: 6 days. Funding: ESRF.

European Synchrotron Radiation Facility (ESRF) Jan 2010
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
Duration: 6 days. Funding: ESRF.

European Synchrotron Radiation Facility (ESRF) Dec 2009
Grenoble, France

Worked in the beamlines ID19 and BM05 scanning amber samples and using VGStudio Max 2.0 software for segmenting volumes of the scanned specimens.
Duration: 9 days. Funding: ESRF.

FIELD EXPERIENCE (6)

Third amber excavation in the San Just outcrop 2012

Teruel, Spain

Co-director

Duration: 12nd –16th July

Number of participating researchers: 10

Second amber excavation in the San Just outcrop 2010

Teruel, Spain

Participant

Duration: 12nd – 16th October

Number of participating researchers: 8

Third amber excavation in the El Soplao outcrop 2009

Cantabria, Spain

Participant

Duration: 21st – 31st July

Number of participating researchers: 8

Second amber excavation in the El Soplao outcrop 2009

Cantabria, Spain

Participant, in charge of the excavation during its second half

Duration: 11th – 21st March

Number of participating researchers: 6

First amber excavation in the El Soplao outcrop 2008

Cantabria, Spain

Participant

Duration: 15th – 31st October

Number of participating researchers: 7

First amber excavation in the San Just outcrop 2007

Teruel, Spain

Participant

Duration: 1st – 15th July

Number of participating researchers: 16

TEACHING EXPERIENCE

Teaching assistant 2009–2012

University of Barcelona

Provided instruction and support for practicals on the subjects “Biology”, “Evolution and Origin of Life” and “Paleontology”

25 hours per academic year = 100 hours

INTERNSHIPS

Collaborating volunteer 2007

University of Barcelona

Curation and cataloguing of the Paleontology Department fossil collection

LANGUAGE SKILLS (3)

- Spanish (native)
 - Catalan (native)
 - English (above proficient)
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RESEARCH SKILLS (9)

Research techniques

- Microscopy (light, fluorescence/confocal)
- Camera lucida
- Synchrotron imaging (X-ray phase contrast microtomography)
- FTIR spectrophotometry

Computer skills

- Image and photograph editing (Adobe Photoshop, Corel Draw, Helicon Focus, Combine ZP, etc)
 - Video editing (Adobe Premiere, VideoPad, etc)
 - Tomographic data processing (VGStudioMax 2.0)
 - Phylogenetic software (e.g., PAUP*, TNT, etc)
 - Databasing software
-

PROFESSIONAL SERVICE

PEER-REVIEWED PAPERS FOR JOURNALS) (9)

- Zootaxa (1) 2012
- Paleontological Contributions (1) 2013
- Paleobiology (1) 2013
- Novitates Paleontologicae (1) 2013
- Cretaceous Research (2) 2013, 2014
- Current Biology (1) 2014
- Arachnology (1) 2014
- Alcheringa (1) 2015

RESEARCH PROJECTS (1)

- National Geographic Society (1) 2015