

## PABLO A. GOLOBOFF

- Born November 5, 1962, Ciudad de Buenos Aires, Argentina. Married (Claudia A. Szumik, 1989). Daughters: Lucía Ana (1993) and Victoria Emilia (1998).
- Investigador Superior de la Carrera del Investigador Científico del Consejo Nacional de Investigaciones Científicas y Técnicas.
- Works at Unidad Ejecutora Lillo, Fundación Miguel Lillo – CONICET, Miguel Lillo 251, 4000 S.M. Tucumán.
- Theory and methods for quantitative phylogenetic analysis. Quantitative biogeography. Systematics, phylogeny, and biology of spiders.

## DEGREES

- 1989, Licenciado en Ciencias Biológicas, Facultad de Ciencias Exactas y Naturales de la Universidad de Buenos Aires, Argentina.
- 1994, Ph.D. in Entomology, Cornell University, New York, U.S.A.

## TEACHING EXPERIENCE

**Courses on phylogenetics, cladistics, and use of computer programs for phylogenetic analysis, taught in Argentina, Brazil, China, Colombia, Denmark, Spain, United States, Mexico, Peru, Czech Republic, South Africa, Sweden, and Uruguay.**

- Short course on “Foundations of phylogenetics” (*virtual*), organized by The Willi Hennig Society and the International Vertebrate Palaeontology and Palaeoanthropology of Beijing, China, 13 – 15 Dec 2021. Taught in collaboration with James Carpenter, María A. Gandolfo, Kevin Nixon, Christiane Weyrauch, and Ward Wheeler (Goloboff was general coordinator). Enrollment: about 800 students.
- Workshop on Use of TNT (*virtual*, 3-day workshop), Organized by the Universidade Federal do Paraná, Brazil, taught November 5–6, 2020. Enrollment: 20 students.
- Course on “*Phylogenetic Analysis: Foundations and Methods*”, workshop organized by the Willi Hennig Society and Transmitting Science, in Gothenburg Botanical Garden, **Sweden**, Aug. 22–25 2019, with 30 hs. Taught in collaboration with James Farris, Sebastian Kvist, Kevin Nixon, Mark Siddall, and Ward Wheeler (Goloboff was general coordinator). Enrollment: 25 students.
- Course “*Workshop on Cladistics and Use of TNT*”, taught in Beijing, **China**, Institute of Vertebrate Paleonotology and Palearthropology”, in collaboration with Drs. Diego Pol and Michael Pittman, March 26–28 2018, with 24 hs. of lectures and practice. Enrollment: 140 students.
- Course on “*Critical Phylogenetics*”, taught in University of Helsinki, **Finlandia**, Faculty of Biological, Environmental and Food Sciences, in collaboration with Ward Wheeler and Claudia Sumik, Feb. 16-17 2017. Enrollment: 15 students.
- Course on “*Cladística: Métodos cuantitativos de clasificación y uso de TNT*”, taught in Els Hostalets de Pierola, organized by Transmitting Science, Catalunya, **España**, June 29 – July 3 2015, with 40 hs. Enrollment: 12 students.
- Course on “*Cladística, TNT, y NDM/VNDM*”, taught in Universidad Autónoma del Estado de Hidalgo, Pachuca, **México**, Feb 12–16 2015, with 45 hs. Enrollment: 20 students.

- Course on "*Cladística: Métodos cuantitativos de clasificación y uso de TNT*", taught in Els Hostalets de Pierola, organized by Transmitting Science, Catalunya, **España**, June 3–7 2013, with 40 hs. Enrollment: 13 students.
- Course on "*Cladística: Métodos cuantitativos de clasificación*", taught in Universidad Agraria La Molina, Lima, **Perú**, organized by CEBIO-Perú, Jan 14–18 2013, 40 hs. Enrollment: 25 students.
- Course on "*NDM/VNDM/VIP: programas de computación para biogeografía, fundamentos y aplicaciones*". Taught by C. Szumik, with collaboration from P. Goloboff, in Universidad Agraria La Molina, Lima, **Perú**, organized by CEBIO-Perú, Jan 21–23 2013, with 24 hs. Enrollment: 25 students.
- Course on "*Cladística: Métodos cuantitativos de clasificación y uso de TNT*", taught in the Museo de Ciencias Naturales de Madrid, **España**, March 1–5 2010, with 40 hs. Enrollment: 22 students.
- Professor in "*International Workshop of the Willi Hennig Society*", organized by the Willi Hennig Society, taught July 21–26 2008, in Columbus, Ohio, **U.S.A.** (taught in collaboration with J. S. Farris, J. Wenzel, W. Wheeler, and L. Kubatko). Goloboff in charge of 5 lectures and 5 lab sessions. Enrollment: 20 students.
- Professor in "*Workshop on The Theory and Practice of Phylogenetics*", Funded by The South African Biosystematics Initiative, The National Research Foundation, The Department of Science and Technology and The University of Cape Town, Feb 4–8 2008, Capetown, **South Africa** (taught together with James S. Farris). Enrollment: 20 students.
- Professor in "*III International Workshop of the Willi Hennig Society*", organized by the Willi Hennig Society, July 16–20 2007, in Columbus, Ohio, **U.S.A.** (taught in collaboration with K. Nixon, J. Wenzel, W. Wheeler, J. Freudenstein, and L. Kubatko). Goloboff in charge of 5 lectures and 5 lab sessions. Enrollment: 20 students.
- Post-doctoral Course "*Cladística: Métodos cuantitativos de clasificación*", taught in the Universidad Nacional de Colombia, Bogotá, **Colombia**. Nov, 20–24 2006, with 40 hs. (taught with collaboration from Salvador Arias). Enrollment: 18 students.
- Professor in "*II International Workshop of the Willi Hennig Society: Phylogenetics analysis: Theory and Practice*", organized by the Willi Hennig Society, Sept. 4–7 2006, Pruhonice, **Czech Republic** (taught together with J. Carpenter, K. Nixon, J. Wenzel, and W. Wheeler). Goloboff in charge of 4 lectures and 2 lab sessions. Enrollment: 30 students.
- Professor in "*Phylogenetics Symposium and Workshop*", taught Dec. 3–4 2005, in Ohio State University, Columbus, **U.S.A.** (taught together with G. Giribet, W. Wheeler, K. Nixon, A. Kluge, and J. Farris). Goloboff in charge of 2 lectures and a lab sesión. Enrollment: 90 students.
- Workshop on TNT (40 hs.), taught in Uppsala University, Uppsala, **Suecia**, Sept. 5–9 2005, 40 hs. Enrollment: 15 students.
- Mini-course (30 hs.) on "Use of TNT", taught in Universidad de São Paulo, **Brasil**, for the Fórum de Sistemática e Evolução, Aug 15–18 2005. Enrollment: 30 students.
- Invited Professor in the course on "*Phylogenetic systematics and historical biogeography*", (Goloboff in charge of 5 classes), taught in Copenhagen University, **Denmark**, Feb 2003. Enrollment: 15 students.
- Taught (2 times) the Special Course on "*Cladística: Métodos cuantitativos de clasificación*", for udergrads, in the Carrera de Biología de la Facultad de Ciencias Naturales, Universidad Nacional de Tucumán, during 2nd semester 2005, and 1st semester 2010.

- Taught (15 times) the Post-Doctoral Course "*Cladística: Métodos cuantitativos de clasificación*," of about 50 hs., in different Universities in Argentina:
  - Facultad de Ciencias Naturales - ***Universidad Nacional de Tucumán*** (1995, 25 students; 1997, 15 students; 2000, 15 students; 2003, 30 students; 2004, 30 students; 2007, 40 students; 2010, 36 students; 2017, 35 students; 2022, 20 students).
  - Facultad de Ciencias Exactas y Naturales - ***Universidad de Buenos Aires*** (1992, as teaching assistant of Kevin Nixon, with 15 students; 1996, 12 students).
  - Facultad de Ciencias Naturales - ***Universidad de La Plata*** (2000, 30 students).
  - Facultad de Ciencias Exactas Físicas y Naturales - ***Universidad de Córdoba*** (1999, 30 students).
  - Universidad Nacional de Patagonia***, Trelew (2006–30 students).
  - Facultad de Ciencias Agrarias, ***Universidad Nacional del Litoral***, Esperanza, Santa Fe (2009, 30 students).
- Coordinator (in collaboration with V. Abdala and C. Szumik) and teaching of 2 classes ("Optimización de caracteres", y "Búsquedas de árboles óptimos"), in the Post-Doctoral Course "Filogenias moleculares: Teoría y Práctica", taught by Dr. Gonzalo Giribet (Harvard University), in FCN, Universidad Nacional de Tucumán, 2003, with 40 hs. Enrollment: 30 students.
- Taught 4 workshops or mini-courses on Quantitative methods in systematics and phylogeny, with 8 to 2 hs. duration, in Mar del Plata (IV Congreso Argentino de Entomología, 1998), Tucumán (I Reunión Argentina de Cladística y Biogeografía, 1997, and XI Reunión de Comunicaciones Herpetológicas, Oct 11-13 1995), and Montevideo, Uruguay (I Encuentro de Aracnólogos del Cono Sur, 1997).
- Three classes (1997) in the seminar on "Character coding", taught by Kevin C. Nixon, Cornell University ("Sankoff Parsimony", "Character weighting in Phylogenetic Analysis", and "Measuring Group Support"), and a class (1993) in the "Seminar in Evolution", taught by L. Marcus, in City University of New York ("Character weighting").

## GRANTS AND FELLOWSHIPS

### **As member of a Research Group**

Participant in 4 grants from CONICET, Consejo de Ciencia y Técnica de la Prov. de Tucumán, and Consejo de Investigación de la Universidad Nacional de Tucumán, between 1994-1995 (amounts granted: 12.000, 20.949, 5.000 and 2.414 pesos; director: Dr. Abraham Willink).

Participant of the Project "Araneae—Tree of Life," of the National Science Foundation, U.S.A. (amount granted to the project: 2.700.000 U\$S; director Ward C. Wheeler; P. Goloboff had a share of 18.000 U\$S).

Participant of the Project "Caracterización artropodológica de las Yungas Argentinas", PICT 12605 (amount granted: 225.000\$; director Mercedes L. de Grossi).

### **As Principal Investigator**

1999, Subsidio PICT 98 of the Agencia Nacional de Promoción Científica y Tecnológica, for "Sistemática y Biodiversidad de la fauna Entomológica Argentina, con énfasis en el NOA, y su aplicación a los recursos naturales renovables" (Project No. 01-04347). Amount Granted (for 1999-2001): 118.000.

- 2008, Subsidio CONICET para Reuniones Científicas (Amount Granted: 30.000, to fund the 27th International Meeting of the Willi Hennig Society).
- 2008, Subsidio ANPCyT, para Reuniones Científicas (Amount Granted: 9.600, to fund the 27th International Meeting of the Willi Hennig Society).
- 2008, Subsidio PICT 07 of the Agencia Nacional de Promoción Científica y Tecnológica, for “Métodos computacionales en Filogenia y Biogeografía: desarrollos teóricos y aplicación práctica” (proyecto nro. PICT-2007-01314). Amount Granted (2008-2010): 190.163.
- 2011, Subsidio PIP de CONICET, for “Desarrollo de métodos en filogenia y biogeografía, y su aplicación a los artrópodos” (Project nr. 112 201101 00687). Amount granted (2012–2014): 232.690.
- 2016, Subsidio PUE (“Proyecto de Unidad Ejecutora”) de CONICET, for “Integrando estudios de filogenia y biogeografia” (Project Nr. PUE 0070). Amount Granted: 4.654.749.
- 2021, PIP 2021-2023 CONICET, for “Nuevos desarrollos en métodos de estudio de filogenia y biogeografía histórica”, Project Nr. 11220200102052CO. Amount Granted: 1.810.000,00.

### **Personal**

- 2002, travel expenses (1000 U\$S), by the Organizing Committee of the XXI International Meeting of the Willi Hennig Society, to take part of the Meeting (Helsinki, Aug 12-15 2002)
- 1998, travel expenses (700 U\$S aprox.), by the Organizing Committee of the XVII International Meeting of the Willi Hennig Society, to take part of the Meeting (São Paulo, Sept 21-25 1998).
- 1997, Funds for Research and Development (Proyectos de Estímulo a la Investigación, CONICET), for "Algoritmos para análisis filogenético por procesamiento en paralelo" (4234 U\$S).
- From the Bailey Hortorium (Cornell University), travel expenses (2500 U\$S), to work on algorihtms for parallel processing in Ithaca, New York.
- 1994, from Organizing Committee of the XIII Annual Meeting of the Willi Hennig Society, Naturhistoriska Riksmuseet (Stockholm), and Department of Systematic Botany, Uppsala University (Uppsala), travel expenses (2500 U\$S approx.), to attend XIII Annual Meeting of the Willi Hennig Society, demonstrate computer programs for cladistic analysis, and give a seminar in Uppsala University.
- 1992, Conference Travel Grant, from Graduate School, Cornell University (400 U\$S), to fund participation at XI Annual Meeting of the Willi Hennig Society.
- 1992, Moore Fund, from the Bailey Hortorium, Cornell University (1500 U\$S, for visiting the arachnological collection of the Museum National d'Histoire Naturelle in Paris).
- 1991, Griswold Fund, from Department of Entomology, Cornell University (300 U\$S), to attend the 1991 Annual Meeting of the American Arachnological Society.
- 1990, Research Travel Grant, from Graduate School, Cornell University (1300 U\$S), and Griswold Fund, of the Department of Entomology, Cornell University (500 U\$S), for a collecting trip to Peru and Bolivia (the only known specimens of *Ischnothelus goloboffi* Coyle 1995 were collected during that trip).
- 1989-1994, fellowship from the American Museum of Natural History, Cornell-AMNH Graduate Training Program (total funding provided by the AMNH: 60.000 U\$S, including tuition at Cornell University).

- 1989, Beca Doctoral from the Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina (resigned in July 1989, to begin graduate studies at Cornell University).
- 1987-1989, Beca de Investigación para Estudiantes, Universidad de Buenos Aires.
- 1986, Collection Study Grant, of the American Museum of Natural History (400 U\$S).

## POSITIONS

- 1994, Carrera del Investigador Científico del CONICET (Category: Adjunto con director; Director: Norman I. Platnick, co-Director: Abraham Willink). 1994-1997 Investigador Adjunto con Director; 1998-2007 Investigador Independiente; 2008-2018 Investigador Principal; 2018, Investigador Superior.
- Adscripto to Dirección de Zoología of the Fundación Miguel Lillo; Miembro del Consejo Directivo and Director of the lab on "Sistemática" at Instituto Superior de Entomología (Facultad de Ciencias Naturales, U.N.T.), 1998 - 2014.
- 1992, Visiting Professor (2 months), F.C.E.N., Universidad de Buenos Aires.
- 1989-1991, Graduate Research Assistant, Department of Entomology, Cornell University.
- 1988-1989, Ayudante de 2a, Área Sistemática y Morfología Animal, Depto. de Ciencias Biológicas, F.C.E.N., Universidad de Buenos Aires.
- 1984, Hired as Technician by the Museo Argentino de Ciencias Naturales, Sección Aracnología (7 months).
- 1981-1982, substitute technical position in the Museo Argentino de Ciencias Naturales, Sección Aracnología (10 months).

## ORGANIZATION OF MEETINGS/SYMPOSIA

- Organizer of the Symposium “Methodological Problems”, in the XXXV International Meeting of the Willi Hennig Society, Buenos Aires, Oct 4-8 2016.
- Organizer of the XXVII International Meeting of the Willi Hennig Society and VIII Reunión Argentina de Cladística y Biogeografía, in San Miguel de Tucumán, Oct 28–31 2008.
- Organizer of the Symposium "Problemas Metodológicos", in VI Reunión Argentina de Cladística y Biogeografía, Trelew, Apr 27-29 2006.
- Organizer of the Symposium "Problemas metodológicos en el análisis de caracteres morfológicos", in V Reunion Argentina de Cladística y Biogeografía, Salta, Sept 2-4 2004.
- Chairman in the Symposium "Epistemology and cladistics", in XXIII Annual Meeting of the Willi Hennig Society, Paris, France, Jul 18-23 2004.
- General Coordinator of the First International Workshop of the Willi Hennig Society, San Miguel de Tucumán, Argentina, Mar 11-15 2002.
- Organizer of the Symposium on "Problemas de Metodologías", in III Reunión Argentina de Cladística y Biogeografía, Mendoza, Argentina, Aug 10-12 2001.
- President of the Comisión Organizadora de la Primera Reunión Argentina de Cladística y Biogeografía, San Miguel de Tucumán, Argentina, Nov 19-21 1997.
- Chairman of the Symposium on "Character Weighting," in XVII Annual Meeting of the Willi Hennig Society, São Paulo, Brazil, Sep 21-25 1998.
- Organizer of the Session on "Computer Software," in XVII Annual Meeting of the Willi Hennig Society, São Paulo, Brazil, Sep 21-25 1998

## INVITED LECTURES/SEMINARS

- 2017, “*On model-based phylogenetic inference for the analysis of morphological data*”. Seminar in Viikki Plant Science Centre, University of Helsinki, **Finland**, Feb 15 2017.
- 2009. “*Darwin y el arbol de la vida*”. Conference in the Symposium “Tribute to Darwin”, of the XLV Reunión Anual de la Sociedad Argentina de Investigación en Bioquímica y Biología Molecular (SAIB), Tucumán, **Argentina**, Nov 12 2009.
- 2009. “*Árboles de la vida: materializando el sueño de Darwin*.” Conference in the “Ciclo de Conferencias Homenaje a Darwin”, Facultad de Ciencias Naturales e Instituto Miguel Lillo, Tucumán, **Argentina**, June 5 2009.
- 2007. “*Tree-search, consensus, and support calculation in large, ambiguous data sets*.” Seminar in Naturhistoriska riksmuseet, Stockholm, **Sweden**, Sep 20 2007.
- 2005. “*NDM-VNDM: programas de computadora para identificar áreas de endemismo*.” Conference in Museo Argentino de Ciencias Naturales “Bernardino Rivadavia,” Buenos Aires, **Argentina**, Jul 22 2005.
- 2002. “*Super-trees: métodos para la construcción de superárboles*.” Facultad de Ciencias, Universidad Nacional de México, invited by the Comité Mexicano de Sistemática y Biogeografía, **Mexico**, May 2002.
- 2001, “*Improving Computation of Large and Complex Data Sets*,” Seminar in George Washington University, May 2001, Washington DC, **U.S.A.**
- 1998, “*Post-Hennigian Cladistics*,” Invited Conference in IX International Conference on Ephemeroptera, Tafí del Valle, Tucumán, **Argentina**.
- 1997, “*Phylogenetic Analysis under the Parsimony Criterion*,” lecture in the Colloquium Series of the Center for Applied Mathematics/Cornell Theory Center, Cornell University, New York, **U.S.A.**
- 1994, “*Searching most parsimonious trees efficiently*,” seminar in Department of Botany of Uppsala University, **Sweden**.
- 1994, demonstration of the computer programs Pee-Wee y NONA, in Naturhistoriska Riksmuseet, Stockholm, **Sweden**.
- 1993, “*Estimating character weights in phylogenetic analysis*”, seminar in “Systematics Discussion Group” of the American Museum of Natural History, New York, **U.S.A.**

## HONORS AND AWARDS

2023. **Konex Award - Merit Diploma** Information Sciences and Artificial Intelligence, Buenos Aires, Argentina

2022. **Académico Correspondiente** of the Academia Nacional de Ciencias de Córdoba, Argentina (<https://www.anc-argentina.org.ar/es/institucional/academicos/academicos-correspondientes/>)

2009. **Fellow Honoris Causa** of the Willi Hennig Society (to date, the Society has only three other fellows H.C.: Gareth Nelson, Kåre Bremer, and James S. Farris).

2005. **Ebbe Nielsen Award**, for Research in Biosystematics and Bioinformatics, by the GBIF (Global Biodiversity Information Facility, [www.gbif.org](http://www.gbif.org)).

1992. **Donn E. Rosen Award**, to the best student paper presented at the XI Annual Meeting of the Willi Hennig Society (**France**).

1991. ***Donn E. Rosen Award***, to the best student paper presented at the X Annual Meeting of the Willi Hennig Society (**Canada**).

## SOCIETIES

Asociación Argentina de Ciencias Naturales (1981-1995); Sociedad Entomológica Argentina (desde 1983); American Arachnological Society (1984); New York Entomological Society (1989-1993); Willi Hennig Society (desde 1992).

## SERVICE

- Director por Concurso of Unidad Ejecutora del CONICET "Unidad Ejecutora Lillo", 2015-2019.
- Vice-Director del Instituto Superior de Entomología “Dr. Abraham Willink” (INSUE), in Facultad de Ciencias Naturales de la Universidad Nacional de Tucumán, 2010 – 2014.
- Member of **Comisión Asesora** de Biología del **CONICET**, 2008, 2011.
- Member of **Comisión Ad Hoc** de Biología Organísmica, for PICT 2006-2009, **FONCyT**, Oct 6-7 2005.
- **Willi Hennig Society: Presidente** (2004-2006); **Fellow member** (since 1992); **Council member** (1996-1998, 2000-2002, 2013-2015, 2018-2020).
- **Research Associate** del **American Museum of Natural History** (New York), since 2004.
- **Advisory Board** of the journal **Cladistics** (1995 – 2004).
- Member of the **Nominating Committee for Councils** of the **Willi Hennig Society** (1998, 2002).
- **Consejo de Asesores Editoriales** of the **Boletín de la Sociedad Argentina de Botánica** (since 2001).
- **Editor Asociado** of the **Revista de la Sociedad Entomológica Argentina** (Mar - Oct, 1998).
- **Consejo Editorial** of the journal **Kurtziana** (since 1999).
- **Consejo Editorial** of the journal **Entomotropica** (before, "Entomologica Venezuelica") (since 2000).
- Invited Participant in the workshop on "**Assembling the Tree of Life: Research Needs on Phylogenetics and Phyloinformatics**" (Yale, U.S.A., Julio 2000, sponsored by the **National Science Foundation**; see [cbc.amnh.org/acrobat/tol\\_workshop\\_report.pdf](http://cbc.amnh.org/acrobat/tol_workshop_report.pdf) ).
- Member of **Comisión Ad Hoc** (CONICET, Biología) for Ingresos a Carrera (2001); **Comisión Ad Hoc** (Biología) to evaluate applications for Proyectos de Investigación Plurianuales (2000); **Comisión Ad Hoc** to evaluate Promoción a Clase Superior (2020-2021, 2022-2023).
- **Revisor Externo** for applications of Ingreso a Carrera, Promoción, and Postdoctoral Fellowships of **CONICET** (1997-2004).
- **Evaluador externo** for applications to grants from **Agencia Nacional de Promoción Científica y Tecnológica** (1999, 2003, 2004).
- **Evaluador externo** for Comisión Sectorial de Investigación Científica (Uruguay), for Proyectos de Dedicación Total in the **Universidad de la República, Uruguay** (2001).
- **External Evaluator** for projects of **National Science Foundation** (U.S.A.), Program NSF 01-2, DEB Systematic Biology (2001, 2012).

- Judge for the "Premio Argentino de Entomología" (área Morfología y Sistemática), grants by the Sociedad Argentina de Entomología, 2001.
- Reviewer for manuscripts submitted to **American Museum Novitates**, **Bioinformatics**, **BioMed Central (Evolutionary Biology)**, **Bulletin of the American Museum of Natural History**, **Cladistics**, **Cuadernos Herpetológicos**, **Darwiniana**, **Evolution and Development**, **Journal of Arachnology**, **Journal of Biogeography**, **Journal of Comparative Biology**, **Journal of the New York Entomological Society**, **Journal of Theoretical Biology**, **Memoirs of the Queensland Museum**, **Molecular Biology and Evolution**, **Molecular Phylogenetics and Evolution**, **PeerJ**, **Physis**, **PlosOne**, **Revista Brasileira de Entomologia**, **Revista de la Sociedad Entomológica Argentina**, **Systematic Biology**, **Zoologica Scripta**, **Zootaxa**.

## SCIENTIFIC PAPERS

(Google Scholar: [https://scholar.google.com.ar/citations?user=\\_8Gs8\\_IAAAAJ&hl=en](https://scholar.google.com.ar/citations?user=_8Gs8_IAAAAJ&hl=en))

### **Published or In Press:**

- (100) 2023. Simmons, M., Goloboff, P., Stöver, B., Springer, M., & Gatesy, J. Quantification of congruence among gene trees with polytomies using overall success of resolution for phylogenomic coalescent analyses. **Cladistics** (in press) (10.1111/cla.12540).
- (99) 2023. Goloboff, P., & Morales, M. TNT version 1.6, with a graphical interface for MacOs and Linux, including new routines in parallel. **Cladistics** 39, 144–153 (10.1111/cla.12524)
- (98) 2023. Morales, M., & Goloboff, P. New TNT routines for parallel computing with MPI. **Molecular Phylogenetics and Evolution** 178, 107543 (10.1016/j.ympev.2022.107643).
- (97) 2022. De Narváez, J., Szumik, C., Goloboff, P., & Lohmann, L. Unravelling distribution patterns of Neotropical lianas: an analysis of endemicity of tribe Bignonieae (Bignoniaceae). **Botanical Journal of the Linnean Society** 199, 470–495.
- (96) 2021. Ríos-Tamayo, D., Engelbrecht, I., & Goloboff, P. A Revision of the Genus *Hermacha* Simon, 1889 (Mygalomorphae: Entypesidae), in Southern Africa with Revalidation of *Hermachola* Hewitt, 1915, and *Brachytheliscus* Pocock, 1902. **American Museum Novitates** 3977, 1–80 (10.1206/3977.1).
- (95) 2021. Goloboff, P., & Sereno, P. Comparative cladistics: Identifying the sources for differing phylogenetic results between competing morphology-based datasets. **Journal of Systematic Paleontology** 19, 761–786 (10.1080/14772019.2021.1970038).
- (94) 2021. Fischer, W., Giorgi, E., Chakraborty, S., Nguyen, K., Bhattachary, T., Theiler, J., Goloboff, P., Yoon, H., Abfalterer, W., Foley, B., Tegally, H., San, J., Oliveira, T., Network for Genomic Surveillance in South Africa (NGS-SA), Gnanakaran, S., & Korber, B. HIV-1 and SARS-CoV-2: Patterns in the evolution of two pandemic pathogens. **Cell Host and Microbe** (10.1016/j.chom.2021.05.012)
- (93) 2021. Goloboff, P., Catalano, S., & Torres, A. Parsimony analysis of phylogenomic datasets (II): Evaluation of PAUP\*, MEGA, and MPBoot. **Cladistics** 38, 126–146, (10.1111/cla.12476).
- (92) 2021. Torres, A., Goloboff, P., & Catalano, S. Parsimony analysis of phylogenomic datasets (I): scripts and guidelines for using TNT. **Cladistics** 38, 103–125 (10.1111/cla.12477).

- (91) 2021. Goloboff, P., De Laet, J., Ríos-Tamayo, D., & Szumik, C. A reconsideration of inapplicable characters, and an approximation with step-matrix recoding. **Cladistics** 37, 596–629 (10.1111/cla.12456).
- (90) 2021. Torres, A., Catalano, S., & Goloboff, P. Assessing topological congruence among concatenation-based phylogenomic approaches in empirical datasets. **Molecular Phylogenetics and Evolution** 161, 107086 (10.1016/j.ympev.2021.107086).
- (89) 2021. Giannini, N., & Goloboff, P. DUALCOR: a phylogenetic comparative method to evaluate phylogenetic correlation between a character and a non-evolving external variable. **Cladistics** 37, 586–595 (10.1111/cla.12450).
- (88) 2020. Liria, J., Szumik, C., & Goloboff, P. Analysis of endemism of world arthropod distribution data supports biogeographic regions and many established subdivisions. **Cladistics** 37, 559–570 (10.1111/cla.12448).
- (87) 2020. Pol, D., & Goloboff, P. The impact of unstable taxa in Coelurosaurian phylogeny and resampling support measures for parsimony analysis. In Pittman, M., and Xu, X. (eds.), Pennaraptoran Theropod dinosaurs: Past progress and new frontiers. **Bulletin of the American Museum of Natural History** 440, 97–115 (URL <http://digitallibrary.amnh.org/handle/2246/7237>).
- (86) 2020. Pei, R., Pittman, M., Goloboff, P., Dececchi, T., Habib, M., Kaye, T., Larsson, H., Norell, M., Brusatte, S. & Xu, X. Potential for powered flight neared by most close avialan relatives but few crossed its thresholds. **Current Biology** 30, 1–4 (10.1016/j.cub.2020.06.105)
- (85) 2020. Goloboff, P., & Morales, M. A phylogenetic C interpreter for TNT. **Bioinformatics** 36, 3988–3995 (10.1093/bioinformatics/btaa214)
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#### PUBLICATIONS OF GENERAL INTEREST

- (6) Goloboff, P. 2004. Aspectos teóricos de la clasificación biológica. En: Sistemática y Filogenia de los Vertebrados, con énfasis en la fauna argentina (R. Montero y A. Autino, eds.), ISBN-950-554-388-3, pp. 11-17. Universidad Nacional de Tucumán, San Miguel de Tucumán.
- (5) Goloboff, P., & C. Szumik. 1999. ¿Sistemática o filatelia? Bol. Asoc. Argentina Ecol. 8(2):40-41.
- (4) Goloboff, P. 1998. Principios básicos de Cladística. Soc. Argent. Botánica, Buenos Aires, 81 pp. ISBN 978-987-97012-0-1.
- (3) Goloboff, P. 1985. Las Arañas II, Fauna Argentina 83:33-64, Centro Editor de América Latina, Bs. Aires, 1985.
- (2) Goloboff, P. 1985. Las Arañas I, Fauna Argentina 82:1-32, Centro Editor de América Latina, Bs. Aires, 1985.
- (1) Goloboff, P. 1987. Guía para géneros de Arañas Mygalomorphae de la Argentina. El Naturalista, 2(4):1-9.

#### PRESENTATIONS AT MEETINGS AND SYMPOSIA

in 20 countries: Argentina, Germany, Australia, Belgium, Brazil, China, Canada, Denmark, Spain, France, Finland, Netherlands, Italy, Mexico, Norway, Singapore, South Africa, Uruguay, USA, Venezuela

! indicates invited conference, \* indicates presenter of the paper in case of multiple authors

#### In Sessions and Symposia:

- (110) Goloboff, P. and Morales, M. A graphical user interface (GUI) for TNT, under MacOS and Linux. XXXIX International Meeting of the Willi Hennig Society, 24-28 Jul 2022, University of Helsinki, **Finland**.
- (109) Goloboff, P. Multidimensional scaling or comparison with appropriate trees? XXXIX International Meeting of the Willi Hennig Society, 24-28 Jul 2022, University of Helsinki, **Finland**.
- (108) \*Goloboff, P., y P. Sereno. *Comparative Cladistics: identifying causes for differences in results for alternative morphological datasets*. In XXXVIII International Meeting of the Willi Hennig Society, 16–31 May 2019, Berkeley, California, **U.S.A.**
- (107) \*Goloboff, P., y J. S. Arias. *Likelihood approximations of implied weights parsimony can be selected over the Mk model by the Akaike information criterion*. In XXXVIII International Meeting of the Willi Hennig Society, 16–31 May 2019, Berkeley, California, **U.S.A.**
- (106) Goloboff, P. *Parsimonia y métodos basados en modelos: resumen quinquenal*. In XIII Reunión Argentina de Cladística y Biogeografía, 8–10 Apr 2019, San Miguel de Tucumán, **Argentina**.
- (105) Goloboff, P., y P. Sereno. *Cladística Comparativa: identificando causas de diferencias en resultados para datasets morfológicos alternativos*. In XIII Reunión

Argentina de Cladística y Biogeografía, 8–10 Apr 2019, San Miguel de Tucumán, **Argentina**.

- (104) \*Goloboff, P., M- Pittman, D. Pol, X. Xu. *Morphological Datasets Fit a Common Mechanism Much More Poorly than DNA Sequences and Call Into Question the Mkv Model*. In XXXVII International Meeting of the Willi Hennig Society, 17–20 Sept. 2018 Barcelona, **Spain**.
- (103) \*Goloboff, P., M. Pittman, D. Pol., X. Xu. *On the use of the Mkv model for Bayesian analysis of morphological data*. In International Symposium on Archosaurian Phylogeny, 29 Mar de 2018, Beijing, **China**.
- (102) \*Goloboff, P., M. Pittman, D. Pol., X. Xu. *On the use of the Mkv model for Bayesian analysis of morphological data*. In International Pennaraptoran Dinosaur Symposium, 31 Mar–1 Apr 2018, **Hong Kong**.
- (101) \*Goloboff, P., J. Salvador Arias, C. Szumik. *Comparing tree-shapes: beyond symmetry*. XXXV International Meeting of the Willi Hennig Society, 4-8 Oct 2016, Buenos Aires, **Argentina**.
- (100) \*Torres, A., Goloboff, P., Catalano, S. *Parsimony and model-based phylogenomic analyses: a comparison based on empirical datasets*. XXXV International Meeting of the Willi Hennig Society, 4-8 Oct 2016, Buenos Aires, **Argentina**.
- (99) \*Ríos-Tamayo, D., Goloboff, P. *The genus Actinopus (Mygalomorphae: Actinopodidae) in Argentina: combined phylogeny*. XXXV International Meeting of the Willi Hennig Society, 4-8 Oct 2016, Buenos Aires, **Argentina**. (poster)
- (98) \*Seiffe, A., Goloboff, P., Giannini, N. Modifications to a phylogenetic comparative method of continuous characters. XXXV International Meeting of the Willi Hennig Society, 4-8 Oct 2016, Buenos Aires, **Argentina**. (poster)
- (97) Garzón-Orduña, I., \*Szumik, C., Goloboff, P., Brower, A.V. *Endemicity analysis of the tropical forests of South America based on butterflies*. XXXV International Meeting of the Willi Hennig Society, 4-8 Oct 2016, Buenos Aires, **Argentina**.
- (96) \*Goloboff, P., J. Salvador Arias, A. Torres. *Model-based methods vs. Parsimony under equal and implied weights: simulations for morphologists*. XXXV International Meeting of the Willi Hennig Society, 4-8 Oct 2016, Buenos Aires, **Argentina**.
- (95) \*Goloboff, P., and M. Simmons. *Bias in tree searches, and its consequences for measuring group supports*. XXXIII International Meeting of the Willi Hennig Society, 6–10 Jun 2014, Trento, **Italy**.
- (94) Szumik, C., A. Molina, J. Rajmil, R. Moyano, \*P. Goloboff, & V. Pereyra. *New findings on the South American genus Agathemera (Phasmatodea)*. XXXIII International Meeting of the Willi Hennig Society, 6–10 Jun 2014, Trento, **Italy**.
- (93) Goloboff, P. *Phylogenetic analysis using TNT (Tree analysis using New Technology)*. Assembly and Evolution of the Amazonian Biota and its environment –an integrated approach. 11–12 May 2014, Manaus, Amazonas, **Brazil**.
- (92) Szumik C., \*Scrocchi G., Casagranda D., Arzamendia V., Baldo D., Claps L.E., Cuezzo F., Díaz Gómez J.M., Di Giacomo A., Giraudo A.R., Goloboff P., Gramajo C., Kopuchian C., Kretzschmar S., Lizarralde M., Molina A., Mollerach M., Navarro F., Nomdedeu S., Panizza A., Pereyra V.V., Sandoval M., Zuloaga F.O. & Aagesen L. *El Chaco no es uno solo*. XI Reunión Argentina de Cladística y Biogeografía, 26–28 Mar 2014, Santa Fe, **Argentina**.

- (91) \*Goloboff, P., y M. Simmons. *Sesgo en búsquedas y sus consecuencias para medidas de apoyo de grupos.* XI Reunión Argentina de Cladística y Biogeografía, 26–28 Mar 2014, Santa Fe, **Argentina**.
- (90) Goloboff, P. *Generando matrices para las cuales es difícil encontrar árboles óptimos.* XI Reunión Argentina de Cladística y Biogeografía, 26–28 Mar 2014, Santa Fe, **Argentina**.
- (89) \*Ríos Tamayo, D., y P. Goloboff. *Avances en la Filogenia del género Actinopus Perty, 1833 (Actinopodidae: Mygalomorphae) en la Argentina.* XI Reunión Argentina de Cladística y Biogeografía, 26–28 Mar 2014, Santa Fe, **Argentina**.
- (88) Goloboff, P. *Oblong, a program to analyze phylogenomic data sets with millions of characters, requiring negligible amounts of RAM.* XXXII International Meeting of the Willi Hennig Society, Rostock, **Alemania**, 3–7 Aug 2013 (presented by S. Catalano, I could not assist for personal reasons)
- (87) \*Szumik, C, J. Morrone, T. Escalante, H. Kreft, W. Jetz, P. Goloboff. *Areas of endemism: searching for spatial concordance of species, genera and families of mammals of the world.* XXXI International Meeting of the Willi Hennig Society, Riverside, California, **U.S.A.**, June 2012.
- (86) Goloboff, P. *An efficient implementation of IterPCR.* XXXI International Meeting of the Willi Hennig Society, Riverside, California, **U.S.A.**, June 2012.
- (85) Goloboff, P., y \*Catalano, S. *GB-to-TNT: facilitating creation of matrices from GenBank and diagnosis of results in TNT.* XXXI International Meeting of the Willi Hennig Society, Riverside, California, **U.S.A.**, June 2012.
- (84) Goloboff, P. *Una implementación eficiente de IterPCR.* X Reunión Argentina de Cladística y Biogeografía, Mendoza, **Argentina**, 29–31 May 2012.
- (83) Goloboff, P. *Avances recientes en métodos de análisis filogenético por parsimonia.* XI Jornadas de Ciencias Naturales del Litoral y III Jornadas Argentinas de Ciencias Naturales, Córdoba, **Argentina**, 15–18 May 2012.
- (82) !Goloboff, P. *Improvements to implied weighting.* In XXX International Meeting of the Willi Hennig Society, Sao Jose de Rio Preto, **Brasil**, 30 July–2 Aug 2011.
- (81) !Goloboff, P. *Avances recientes en métodos de análisis filogenético por parsimonia.* In XXII Congreso Venezolano de Entomología, Carabobo, **Venezuela**, 11–14 July 2011.
- (80) !Goloboff, P. *Taxonomía y sistemática: su relación con la conservación de la biodiversidad.* In I Congreso Latinoamericano (IV Argentino) de Conservación de la Biodiversidad, San Miguel de Tucumán, **Argentina**, Nov 2010.
- (79) Goloboff, P. *Algunas novedades en pesado de caracteres.* In IX Reunión Argentina de Cladística y Biogeografía, La Plata, **Argentina**, 15–17 Nov 2010.
- (78) Goloboff, P. *Supermatrices y programas de filogenia basados en modelos: una mala combinación.* In IX Reunión Argentina de Cladística y Biogeografía, La Plata, **Argentina**, 15–17 Nov 2010.
- (77) \*Arias, S., Szumik, C., Goloboff, P. *Analysis of vicariant distributions: a method and software for using direct geographical information for historical biogeography.* In XXIX Annual Meeting of the Willi Hennig Society, **Hawaii, U.S.A.**, 22–26 May 2010.
- (76) Goloboff, P. *Supermatrices and model-based phylogeny programs: a bad combination.* In XXIX Annual Meeting of the Willi Hennig Society, **Hawaii, U.S.A.**, 22–26 May 2010.

- (75) Goloboff, P. *Análisis filogenético de grandes matrices de datos*. In Primer Congreso Argentino de Bioinformática y Biología Computacional, Quilmes, **Argentina**, 12–14 May 2010.
- (74) Goloboff, P. *The Tree of Life: Fulfilling Darwin's dream*. In “150 years of Darwin: A South American Celebration”, Punta del Este, **Uruguay**, 2–6 Sept 2009.
- (73) Goloboff, P. *Handling landmark data: a demo*. In XXVIII Annual Meeting of the Willi Hennig Society, **Singapore**, 22–26 June 2009.
- (72) Goloboff, P. *Resampling in large data sets*. In XXVIII Annual Meeting of the Willi Hennig Society, **Singapore**, 22–26 June 2009.
- (71) Goloboff, P., \*S. Catalano, \*J. M. Mirande, C. Szumik, J. S. Arias, M. Källersjö, and J. S. Farris. *Re-defining “large”*. In Symposium on "Large Scale Analysis of Large Chunks of Life", of the XXVII Annual Meeting of the Willi Hennig Society, San Miguel de Tucumán, **Argentina**, 28–31 Oct 2008.
- (70) \*Szumik, C., L. Agesen, V. Arzamendia, D. Baldo, D. Casagranda, F. Cuezzo, J. M. Díaz Gómez, A. Di Giacomo, N. Giannini, A. Giraldo, P. Goloboff, C. Gramajo, C. Kopuchian, S. Kretzschmar, M. Lizarralde, A. Molina, M. Mollerach, O. Morrone, F. Navarro, S. Nomdedeu, A. Panizza, M. Sandoval, G. Scrocchi, L. Taher, F. Zuloaga. *Areas of endemism in argentina: an analysis using 840 species of plants, mammals, reptiles, amphibians, birds, and insects*. In Symposium on "Latin American Biogeography in the 21<sup>st</sup> Century ", of the XXVII Annual Meeting of the Willi Hennig Society, San Miguel de Tucumán, **Argentina**, 28–31 Oct 2008.
- (69) \*Goloboff, P., J. M. Mirande, J. S. Arias. *On weighting characters differently in different parts of the cladogram*. In Simposio sobre "Methodology", of the XXVII Annual Meeting of the Willi Hennig Society, San Miguel de Tucumán, **Argentina**, 28–31 Oct 2008.
- (59) \*Catalano, S., P. Goloboff, N. Giannini. *The optimization of landmark data: a three-dimensional approach*. XXVII Annual Meeting of the Willi Hennig Society, San Miguel de Tucumán, **Argentina**, 28–31 Oct 2008.
- (58) \*Giannini, N., P. Goloboff. *Resolving the correlation of a phylogenetic character and a non-evolving variable*. XXVII Annual Meeting of the Willi Hennig Society, San Miguel de Tucumán, **Argentina**, 28–31 Oct 2008.
- (57) \*Giannini, N., P. Goloboff, S. Catalano, M. Mirande, C. Szumik, J. S. Arias, M. Källersjö, and J. S. Farris. *A glimpse into the mammal branch of the “large” eukaryote tree*. XXVII Annual Meeting of the Willi Hennig Society, San Miguel de Tucumán, **Argentina**, 28–31 Oct 2008.
- (56) Giannini, N., y P. \*Goloboff. *Correlación filogenética de respuesta demorada: un método para determinar la covariación de caracteres continuos*. Presented in "Simposio sobre Problemas Metodológicos" of the VII Reunión Argentina de Cladística y Biogeografía, San Isidro, Buenos Aires, **Argentina**, 14–16 Nov 2007.
- (57!) Goloboff, P. *Tratamiento de la ambigüedad en grandes matrices de datos*. Invited Conference in VII Reunión Argentina de Cladística y Biogeografía, San Isidro, Buenos Aires, **Argentina**, 14–16 Nov 2007.
- (55) \*Goloboff, P. *Cladística cuantitativa: métodos computacionales para reconstruir relaciones evolutivas*. Presented in II Reunión Bienal Argentino-Checa, "E-Golems", Buenos Aires, **Argentina**, 24–26 Sep 2007.

- (54) \*Goloboff, P., y N. Giannini. *An optimization-based method to estimate and test character correlation for continuous characters.* In el XXV Annual Meeting of the Willi Hennig Society, Oaxaca, **Mexico**, 14-17 Aug 2006.
- (53) \*Goloboff, P., y D. Pol. *Estrategias de "divide-and-conquer" para análisis de matrices con un gran número de taxones.* In Symposium on "Problemas Metodológicos" of the VI Reunión Argentina de Cladística y Biogeografía, Trelew, **Argentina**, 27-29 April 2006.
- (52) Goloboff, P. *El pesado de caracteres mejora los resultados para data sets morfológicos.* In Symposium on "Problemas Metodológicos" of the VI Reunión Argentina de Cladística y Biogeografía, Trelew, **Argentina**, 27-29 April 2006.
- (51!) Goloboff, P. *On divide-and-conquer strategies for parsimony analysis of large data sets.* Workshop on "The Problems of Phylogenetic Analysis of Large Datasets", at the Mathematical Biosciences Institute, Ohio State University, Columbus, **U.S.A.**, 1-2 Dec 2005.
- (50) Goloboff, P. *Weighting improves group support in morphological data sets.* XXIV Annual Meeting of the Willi Hennig Society, Fagerness, **Norway**, 25-28 July 2005.
- (49!) Goloboff, P. *NDM-VNDM: Programs for identification of Areas of Endemism.* X Meeting of the Global Biodiversity Information Facility, Brussels, **Belgium**, 17-23 April 2005.
- (48!) Goloboff, P. *Supertrees.* V Reunión Argentina de Cladística y Biogeografía, Salta, **Argentina**, 2-4 Sept 2004.
- (47) \*Goloboff, P., C. Mattoni, S. Quinteros. *Caracteres continuos analizados como tales.* V Reunión Argentina de Cladística y Biogeografía, Salta, **Argentina**, 2-4 Sept 2004.
- (46) \*Goloboff, P., C. Mattoni, S. Quinteros. *Continuous characters analyzed as such.* In Symposium "Methodological advances in cladistics," at the XXIII Annual Meeting of the Willi Hennig Society, Paris, **France**, 18-23 July 2004.
- (45) De Laet, J., J. \*Farris, P. Goloboff. *Treatment of multiple trees in resampling analyses.* XXIII Annual Meeting of the Willi Hennig Society, Paris, **France**, 18-23 July 2004.
- (44!) Goloboff, P. *Analysis of large data sets.* Journeés de la Societe Française de Systematique: Avenir et Pertinence des Methodes d'Analyse en Phylogenie Moleculaire. Paris, **France**, 3-5 Nov 2003.
- (43!) \*Goloboff, P., and D. Pol. *Cases in which bayesian phylogenetic methods will be positively misleading.* In Symposium "Competing Methods on Phylogenetics,", at the XXII Annual Meeting of the Willi Hennig Society, New York, **U.S.A.**, 20-24 July 2003.
- (42!) Goloboff, P. *Parsimonia, likelihood, y simplicidad.* IV Reunión Argentina de Cladística y Biogeografía, Córdoba, **Argentina**, 5-7 Mar 2003.
- (41) \*Goloboff, P., y D. Pol. *Análisis filogenéticos Bayesianos.* IV Reunión Argentina de Cladística y Biogeografía, Córdoba, **Argentina**, 5-7 Mar 2003.
- (40!) Goloboff, P. *Métodos de reconstrucción filogenética: parsimonia vs. likelihood.* Primer Taller de Análisis Filogenético y Evolución Viral, Buenos Aires, **Argentina**, 27-28 Sept 2002.
- (39!) Goloboff, P. *Medición de apoyo de grupos con métodos de remuestreo.* Primer Taller de Análisis Filogenético y Evolución Viral, Buenos Aires, **Argentina**, 27-28 Sept 2002.

- (38!) Goloboff, P. *Supertrees*. Primer Taller de Análisis Filogenético y Evolución Viral, Buenos Aires, **Argentina**, 27-28 Sept 2002.
- (37) Goloboff, P. *Parsimony and different likelihood formulations*. XXI Annual Meeting of the Willi Hennig Society, Helsinki, **Finland**, 12-15 Aug 2002.
- (36!) \*Goloboff, P., W. Wheeler, and D. Pol. *Parallelizing TNT*. In Symposium "High Power Computing", XXI Annual Meeting of the Willi Hennig Society, Helsinki, **Finland**, 12-15 Aug 2002.
- (35) \*Goloboff, P., and C. Szumik. *Improving methods to identify areas of endemism*. XXI Annual Meeting of the Willi Hennig Society, Helsinki, **Finland**, 12-15 Aug 2002.
- (34!) Goloboff, P. *Medición de apoyo de grupos*. Primer Congreso de Estudiantes de Postgrado del Instituto de Ecología, A.C., Xalapa, Veracruz, **Mexico**, 6-8 May 2002.
- (33) Goloboff, P. *Las contribuciones de los aracnólogos a la cladística*. Conference in 3r Encuentro de Aracnólogos del Cono Sur, Córdoba, **Argentina**, 26 Feb to 1 Mar 2002.
- (32) Goloboff, P. *La evaluación de la calidad científica*. Symposium on "Política Científica, Calidad, y Futuro de la Herpetología," at IV Congreso Argentino de Herpetología, Salta, **Argentina**, 18-22 Nov 2001.
- (31) \*Goloboff, P., y Diego Pol. *Superárboles estrictos*. III Reunión Argentina de Cladística y Biogeografía, Mendoza, **Argentina**, 10-12 Aug 2001.
- (30) Bertelli, S., \*N. Giannini, y P. Goloboff. *Filogenia de Tinamidae (Aves), basada en caracteres integumentarios*. III Reunión Argentina de Cladística y Biogeografía, Mendoza, **Argentina**, 10-12 Aug 2001.
- (29!) Goloboff, P. *Filogenias y Ecología*. Primera Reunión Binacional Argentino-Chilena de Ecología, Bariloche, **Argentina**, 23-27 April 2001.
- (28!) Goloboff, P. *Searches in parsimony programs*. Fifth Meeting of the Nordic Phylogenetic Systematics Network, Lammi, **Finland**, 31 Aug to 3 Sept 2000.
- (27!) Goloboff, P. *Measures of group support*. Fifth Meeting of the Nordic Phylogenetic Systematics Network, Lammi, **Finland**, 31 Aug to 3 Sept 2000.
- (26) \*Goloboff, P., J. Farris, y K. Nixon. *Analyzing large data sets in reasonable times*. XVIII Annual Meeting of the Willi Hennig Society, Gottingen, **Germany**, 12-17 Sept 1999.
- (25!) Goloboff, P. *Estrategias de Búsqueda*. II Reunión Argentina de Cladística y Biogeografía, Buenos Aires, **Argentina**, 10-12 Mar 1999.
- (24) Goloboff, P. *Medir el apoyo no es verso*. Symposium on "Problemas Metodológicos" of the II Reunión Argentina de Cladística y Biogeografía, Buenos Aires, **Argentina**, 10-12 Mar 1999.
- (23!) \*Goloboff, P. y \*J. Carpenter. *Character weighting in phylogenetic analysis*. Symposium on "Character Weighting," of the XVII Annual Meeting of Willi Hennig Society, São Paulo, **Brazil**, 21-25 Sept 1998.
- (22) \*Goloboff, P. y J. Farris. *Methods for quick consensus estimation*. XVII Annual Meeting of the Willi Hennig Society, São Paulo, **Brazil**, 21-25 Sept 1998.
- (21) \*Nixon, K., J. Davis, P. Goloboff. *Search strategies for large data sets; an example using rbcL*. Presented at 1998 Meeting of the Botanical Society of America, 2-6 Aug 1998, Baltimore, **U.S.A.**
- (20!) Goloboff, P. y J. S. Farris. *Methods for quick consensus estimation*. Presented at "One-Day Symposium on Numerical Cladistics," New York, **U.S.A.**, 22 May 1998 (presented by Inés Horovitz).

- (19!) \*Farris, J., M. Källersjö, P. Goloboff, y B. Oxelmann. *Improving on the bootstrapp.* Presented at "One-Day Symposium on Numerical Cladistics," New York, **U.S.A.**, 22 May 1998.
- (18) Goloboff, P. *La familia Gallieniellidae (Araneae, Gnaphosoidea) en America.* Primer Encuentro de Aracnólogos del Cono Sur, Montevideo, **Uruguay**, 1-5 Dec 1997.
- (17) \*Goloboff, P., J. Farris, M. Kallersjo, y Bengt Oxelman. *Métodos de estimación rápida de consensos.* Primera Reunión Argentina de Cladística y Biogeografía, 19-21 Nov 1997, San Miguel de Tucumán, **Argentina**.
- (16) Goloboff, P. *Parsimony para matrices de pasos.* Primera Reunión Argentina de Cladística y Biogeografía, 19-21 Nov 1997, San Miguel de Tucumán, **Argentina** (poster).
- (15) Goloboff, P. *Self-weighted optimization: character state reconstructions and tree searches under implied transformation costs.* XV International Meeting of the Willi Hennig Society, Capetown, **South Africa**, 15-20 Dec 1996.
- (14!) Goloboff, P. *Sistemática de Arañas.* Conference at Round Table on "Aracnología," in the XXI Congresso Brasileiro de Zoologia, Porto Alegre, **Brazil**, Febr 1996.
- (13) \*Goloboff, P. y M. J. Ramírez. *Primera cita de las familias Simphytognathidae y Mysmenidae (Araneae: Araneoidea) para la Argentina.* II Reunión Regional de Selvas de Montaña, San Lorenzo, Salta, **Argentina**, 21-24 Sept 1995 (poster).
- (12) Goloboff, P. *Revisión Sistematica de las Nemesiidae (Araneae, Mygalomorphae) de Argentina, Chile, Perú y Uruguay.* Presentedo at III Congreso Argentino de Entomología, Mendoza, **Argentina**, 2-7 April 1995, and II Jornadas Internas de la Facultad de Ciencias Naturales e Instituto Miguel Lillo, San Miguel de Tucumán, **Argentina**, 26-29 April 1995 (poster).
- (11) Goloboff, P. *Búsqueda de Clasificaciones Optimas.* II Jornadas Internas de la Facultad de Ciencias Naturales e Instituto Miguel Lillo, San Miguel de Tucumán, **Argentina**, 26-29 April 1995 (poster).
- (10) Galiano, M. E., y \*P. A. Goloboff. *El desarrollo postembriionario de Actinopus sp. cf. insignis y Diplura paraguayensis (Araneae, Mygalomorphae).* XI Jornadas Científicas de la Sociedad de Biología de Tucumán, San Pedro de Colalao (Tucumán), **Argentina**, 6-8 Oct 1994 (poster).
- (9) \*Carpenter, J., y P. Goloboff. *Statistical tests of tree topology and the phylogenetic placement of Onychophora.* Symposium on "Phylogeny of the Invertebrates", of the XIII Annual Meeting of the Willi Hennig Society, Copenhaguen, **Denmark**, 23-26 Aug 1994.
- (8) Goloboff, P. *Simultaneous estimation of weights and trees.* Contributed paper at the XI Annual Meeting of the Willi Hennig Society, Paris, **France**, 24-28 Aug 1992.
- (7) Goloboff, P. *Systematics of Neotropical Nemesiidae (Araneae, Mygalomorphae).* Presented at the 1991 Annual Meeting of the American Arachnological Society, Oxford Campus, Mississippi, **U.S.A.**, June 1991.
- (6!) Goloboff, P. *Null Hypotheses in Tests for Informativeness.* Symposium on "Null Models and Randomization in Phylogenetic Analysis", of the X Annual Meeting of the Willi Hennig Society, Toronto, **Canada**, 16-19 Aug 1991.
- (5) Goloboff, P. *Uninformativeness and Homoplasy in Cladistic Data.* Symposium on "Parsimony Analysis and Character Weighting", of the IX Annual Meeting of the Willi Hennig Society, Canberra, **Australia**, 23-27 Aug 1990.

- (4) \*Coyle, F., P. Goloboff, and R. Samson. *Actinopus trapdoor spiders (Araneae, Actinopodidae) killed by the fungus, Nomuraea atypicola (Deuteromycotina)*. XI International Congress of Arachnology, Turku, **Finland**, Aug 1989.
- (3) Goloboff, P. *Sistemática de Nemesiidae (Araneae, Mygalomorphae) de la Argentina*. Presented at Expobeca '88, Buenos Aires, **Argentina**, Nov. 1988 (poster).
- (2) Goloboff, P. *Sistemática de Dipluridae (Araneae, Mygalomorphae) de la Argentina*. Presented at Expobeca '87, Buenos Aires, **Argentina**, Nov. 1987 (poster).
- (1) Goloboff, P. *Una nueva especie de Dipluridae (Araneae): Chilehexops misionensis*. I Congreso Argentino de Entomología, Tucumán, **Argentina**, April 19-25, 1987 (poster).

#### **At virtual “Meetings” (during COVID pandemics):**

- Goloboff, P. *Parsimony, explanatory power, and inapplicable characters*. In I International Symposium on Phylogenetic Systematics and Biogeography, 4 – 6 Nov. 2020, Universidade Federal do Paraná, **Brazil**.
- Goloboff, P., D. Ríos-Tamayo, y C. Szumik. *A compromise approximation to inapplicable characters*. In I Meeting of Systematics, Biogeography and Evolution, organized by latin-american students, 28–30 July 2020 (virtual).

#### **Workshops for Computer Programs**

- Goloboff, P. Demonstration of TNT (ver. 1.0): Tree Analysis Using New Technology. Journées de la Societe Française de Systematique: Avenir et Pertinence des Methodes d'Analyse en Phylogenie Moleculaire. Paris, **France**, 3-5 Nov 2003.
- Goloboff, P., J. Farris, y K. Nixon. Tree Analysis Using New Technology: T.N.T. (ver. 0.6), XXII Annual Meeting of the Willi Hennig Society, New York, **U.S.A.**, 20-24 July 2003.
- Goloboff, P., J. Farris, y K. Nixon. Tree Analysis Using New Technology: T.N.T. (ver. 0.2), XIX Annual Meeting of the Willi Hennig Society, Leiden, **Netherlands**, 28 May to 2 Jun 2000.
- Goloboff, P. Est (1.5.1) y West (1.5), XVII Annual Meeting of the Willi Hennig Society, São Paulo, **Brazil**, 21-25 Sept 1998.
- Goloboff, P. Pee-Wee (ver. 2.5), NONA (ver. 1.5), SPA (ver. 1.1), PHAST (ver. 1.1), y SL (ver. 0.70), XV Annual Meeting of the Willi Hennig Society, Capetown, **South Africa**, Dec 1996.
- Goloboff, P. Pee-Wee (ver. 2.1), y NONA (ver. 1.1), XIII Annual Meeting of the Willi Hennig Society, Copenhaguen, **Denmark**, Aug 1994.
- Goloboff, P. Pee-Wee (ver. 1.95) y NONA (ver. 0.95), [presented by Dr. James M. Carpenter] XII Annual Meeting of the Willi Hennig Society, Fullerton, California, **U.S.A.**, Aug 1993.
- Goloboff, P. Pee-Wee (ver. 1.45), XI Annual Meeting of the Willi Hennig Society, Paris, **France**, 24-28 Aug 1992.

#### **MEETINGS ASSISTED (with no papers presented)**

- 1998. IV Congreso Argentino de Entomología, Mar del Plata, **Argentina**.
- 1997. XVI Annual Meeting of the Willi Hennig Society, Washington, **U.S.A.**.
- 1990. Annual Meeting of the American Arachnological Society, Ottawa, **Canada**.
- 1989. VIII Annual Meeting of the Willi Hennig Society, Ithaca, New York, **U.S.A.**

## PROGRAMMING EXPERIENCE

Since 1990, programming in the C language, producing several programs for cladistics and biogeography. Two important programs are Piwe and Nona (with *ca.* 15,000 lines of code each). Free versions can be downloaded from <https://www.lillo.org.ar/phylogeny/Nona-PeeWee/>. Other programs are SPA, PHAST, SL, y NDM. Versión 1.0 of the program TNT (available at <https://www.lillo.org.ar/phylogeny/tnt/>) started being distributed in Oct. 2003. Three reviews of TNT were published: in *Cladistics* (2004, review by P. Hovenkamp), *Systematic Entomology* (2004, review by R. Meier and F. Ali), and *Systematic Biology* (2005, review by Gonzalo Giribet). Since late 2007, the program was subsidized by the Willi Hennig Society and became freely available. Version 1.6 was released during Spring (spring of S. Hemisphere) of 2022, and has today 210,000 lines of code.

## FIELD EXPERIENCE (Total field time: over 60 weeks)

**In Argentina:** Santa Cruz (2 weeks, 1980); Neuquén y Río Negro (2 weeks; 1982, 1986); Chubut (5 weeks; 1980, 1982, 1984); La Pampa (1 week; 1983); San Juan y Mendoza (2 weeks, 1981); Buenos Aires y Entre Ríos (numerosos viajes cortos; 1980-1992); Córdoba (3 weeks; 1981; 1983; 1988; 1992); Catamarca (5 weeks; 1986; 1987); Salta, Jujuy, Tucumán y Santiago del Estero (12 weeks; 1981; 1983; 1985; 1988; 1992; 1994-1995); Misiones (7 weeks; 1981, 1983; 1985; 1988; 1992).

**Fuera de Argentina:** Chile (15 weeks; 1984; 1986; 1989; 1992); Brazil (1 week; 1980); Peru (2 weeks; 1991); Bolivia (3 weeks; 1991, 1995); New Caledonia (3 weeks; 1990).

**Taxa dedicated** (in recognition to the work in the field and to my contributions in spider systematics and phylogeny):

**10 spider species:** *Actinopus goloboffi* Ríos-Tamayo (Actinopodidae, Argentina); *Almafuerte goloboffi* Grismado & Carrion (Gnaphosidae, Argentina); *Guaranita goloboffi* Huber (Pholcidae, Argentina); *Ischnothele goloboffi* Coyle (Dipluridae, Perú); *Meriola goloboffi* Platnick (Corinnidae, Argentina); *Opopaea goloboffi* (Oonopidae, Australia); *Otiothops goloboffi* Grismado (Palpimanidae, Argentina); *Questocrypta goloboffi* Raven (Barychelidae, Nueva Caledonia); *Taintnops goloboffi* Platnick (Caponiidae, Chile), *Trichopelma goloboffi* Mori and Bertani (Barychelidae; Cuba)

**1 wasp species:** *Chilicola (Oroediscelis) goloboffi* Packer and Dumesh (Hymenoptera, Colletidae).

**2 spider genera:** *Goloboffia* Griswold (type species *Goloboffia vellardi*, Migidae, Chile), *Losdolobus* Platnick & Brescovit (type species *Losdolobus parana*, Orsolobidae, Brasil, co-dedicated to Pablo Goloboff and Martín Ramírez, combination of “*olobus*” –ending of most genera in the family Orsolobidae– and “*los dos*” –Goloboff y Ramírez).

## CURATORIAL EXPERIENCE

I have worked on the following arachnological collections: Argentina (Museo Argentino de Ciencias Naturales, 1977-1992; Museo de la Plata, 1986; Fundación e Instituto "Miguel Lillo," 1994); Chile (Museo Nacional de Historia Natural, Santiago, 1992); Perú (Museo de la Universidad de San Marcos, Lima, 1990); Bolivia (Universidad de Santa Cruz, Santa Cruz, 1990); Brazil (Museu Nacional de Rio de Janeiro, 1993, Museu de Zoologia da Universidade de São Paulo, 1993, Instituto Butantan, São Paulo, 1993, Museu de Ciencias Naturales, Fundação

Zoobotanica de Porto Alegre, 1993, Pontificia Universidad Catolica, Porto Alegre, 1993); Francia (Muséum National d'Histoire Naturelle, Paris, 1992); U.K. (British Museum of Natural History, 1994); United States (American Museum of Natural History, New York, 1986, 1989-1993, Cornell University, Ithaca 1989-1991, Museum of Comparative Zoology, Harvard, 1991, Smithsonian Institution, Washington, 1991); Australia (Queensland Museum, Brisbane, 1990); Sweden (Naturhistoriska riksmuseet, Stockholm, 1994).

## DIRECTION AND EVALUATION OF STUDENTS AND FELLOWS

**Jury in Doctoral Theses.**— **Fernando Pérez-Miles** (Pedeciba, Uruguay, 1995); **Martín J. Ramírez** (Univ. de Buenos Aires, 1999), **Daniel R. Miranda Esquivel** (Univ. de La Plata, 1999); **Carlos Molineri** (Univ. Nac. de Tucumán, 2003); **Francisco Prevosti** (Univ. de La Plata, 2006); **Fabiana Gallardo** (Univ. de La Plata, 2006); **Paola Carrasco** (Univ. Nac. De Córdoba, 2011); **Carolina Cuezzo** (Univ. Nac. de Tucumán, 2011).

**Member of Thesis Committees.**— **Jonathan Liria** (Universidad Central de Venezuela, "Relaciones filogenéticas en *Psorophora* Robineau-Desvoidy (Diptera: Culicidae)", Master, 2002); **José A. Corronca** (Universidad Nac. de Tucumán, "Revisión de la familia Selenopidae para América del Sur", Doctorado, 1995); **Camilo I. Mattoni** (Universidad Nac. de Córdoba, "Patrones evolutivos en el género *Bothriurus* (Scorpiones, Bothriuridae): Un análisis filogenético", Doctorado, 2003); **José A. Ochoa Camera** (Universidad Nac. de Córdoba, "Sistematica y patrones de distribución de los escorpiones (Chelicerata) del corredor andino, en el Sur de Perú", Doctorado, 2003); **Sebastián Quinteros** (Universidad Nac. de Tucumán, "Filogenia Morfológica y Molecular del grupo *alticolor* (Iguania: Liolaemidae)", Doctorado, 2011); **M. Cecilia Domínguez** (Universidad Nac. de Córdoba, "Revisión sistemática del género *Fannia* en América del Sur Austral", Doctorado, 2005); **Martín de Bustos** (Universidad Tecnológica Nacional, "Implementación en un programa de computadora de la identificación de eventos de vicarianza", Licenciatura, 2003)

**Theses and Doctoral Fellowships, Directed and Co-Directed.**— **Sara Bertelli** (becaria CONICET, "Filogenia de los géneros australes de Tinamidae", Tesis de Doctorado defended, Co-Director, 1998-2002); **Adriana Chalup** (becaria CIUNT, "Contribución al conocimiento de los Ennominae argentinos (Lepidoptera, Geometridae)", Tesis de Doctorado defended 2001, Univ. Nacional de Tucumán, Director, 1998-2001); **Guillermo Suárez** (becario CONICET, "Sistematica de *Pohlia* (Musci)", Tesis de Doctorado defended 2009, Univ. Nac. de Tucumán, Co-Director, 2004-2009); **Marcos Mirande** (becario CONICET, "Filogenia de Characidae (Pisces, Characiformes)", Tesis de Doctorado defended 2008, Univ. Nac. de Tucumán, Co-Director, 2004-2008); **Cecilia Kopuchian** (becaria CONICET, "Filogenia de Furnariidae (Aves)", Tesis de Doctorado defended 2008, Director, 2003-2008); **Joan Salvador Arias Becerra** (becario CONICET, Tesis de Doctorado defended 2015, Univ. Nac. de Tucumán, Director, 2008-2015); **Duniesky Ríos-Tamayo** (becario ANPCyT 2010-2012, becario CONICET 2012-2014, "Estudios de morfología comparada en un marco filogenético, en arañas del género *Actinopus* (Mygalomorphae, Actinopodidae)", Tesis de Doctorado defended 2015, Univ. Nac. de Tucumán, Director, 2010-2015); **Reyna Leticia Moyers Arevalo** (becaria CONICET, postgrado tipo I, "Análisis comparativo de evolución de historias de vida en mamíferos (Chiroptera y Rodentia)", Director, abandoned).

**Direction of Post Doctoral Fellows.**— **Diego Pol** (Mathematical Biosciences Institutue fellowship, Ohio State University, Co-Dir., 2004-2005); **Leila Taher** (CONICET, Dir., 2006-2008); **Santiago Catalano** (CONICET, Dir., 2009-2010); **Duniesky Ríos-Tamayo** (CONICET, Dir., 2018-2019).

**Direction of CONICET Researchers.–** *Marcos Mirande* (2008-2012); *Camilo Mattoni* (2007-2010); *Santiago Catalano* (2011-2014); *J. Salvador Arias* (2019, current) .

## MEDIA

- <https://www.conicet.gov.ar/un-arbol-lleto-de-aranas/> (April 2017)
- <https://www.lagaceta.com.ar/nota/730937/actualidad/tucumano-ideo-software-para-clasificar-biodiversidad.html> (May 2017)
- <https://www.conicet.gov.ar/ordenar-y-clasificar-la-biodiversidad/> (May 2017)
- <https://www.lagaceta.com.ar/nota/802771/actualidad/tucuman-cientificos-dan-vuelta-sistema-produccion-ciencia.html> (April 2019)
- <https://youtu.be/-NGDf2g0gEg?t=828> (June 2021)
- <https://www.lagaceta.com.ar/nota/900485/me-gusta/aporte-tucumano-identificacion-hombre-dragon.html> (July 2021)
- <https://www.conicet.gov.ar/filogenesis-del-sars-cov-2-y-el-vih/> (June 2021)
- <https://www.infobae.com/america/ciencia-america/2021/07/02/quien-es-el-cientifico-que-a-partir-de-seguir-aranas-termeno-haciendo-un-programa-que-rastrea-al-coronavirus-y-al-hombre-dragon/> (July 2021)
- <https://tn.com.ar/salud/noticias/2021/10/22/una-organizacion-cientifica-destaco-el-trabajo-de-715-investigadores-argentinos-entre-10000-de-america-latina/> (Oct. 2021)
- <https://www.conicet.gov.ar/investigador-del-conicet-publica-un-libro-para-que-especialistas-de-diferentes-disciplinas-realicen-reconstrucciones-filogeneticas-optimas/> (Nov 2022)
- <https://noasur.conicet.gov.ar/cientifico-del-conicet-noa-sur-es-incorporado-a-la-academia-nacional-de-ciencias/> (April 2023)
- [https://www.ivoox.com/en/19-04-23-columna-8220-ciencia-soberania-8221-a-cargo-augusto-audios-mp3\\_rf\\_106657483\\_1.html](https://www.ivoox.com/en/19-04-23-columna-8220-ciencia-soberania-8221-a-cargo-augusto-audios-mp3_rf_106657483_1.html) (April 2023)
- <https://www.lagaceta.com.ar/nota/988519/sociedad/incorporaron-al-cientifico-pablo-goloboff-academia-nacional-ciencias.html> (April 2023)
- <https://www.lv12.com.ar/programa/tnt-un-programa-argentino-basado-la-teoria-la-evolucion-n138091> (May 2023)
- <https://www.lagaceta.com.ar/nota/990592/sociedad/pablo-goloboff-fue-elegido-entre-cientificos-mas-destacados-pais.html> (May 2023)