

CURRICULUM VITAE (Abbreviated)

Virla, Eduardo Gabriel**PROFESSIONAL INFORMATION**

Place and address - Institute of Entomology, Fundación Miguel Lillo (Entomology). M. Lillo 251.
4000 San Miguel de Tucumán. Argentina

E-mails: egvirla@lillo.org.ar ; evirla@conicet.gov.ar

EDUCATION

- M.Sc. 1987 Biologist (Zoological orientation).
- Ph.D. 1992 School of Natural Sciences, La Plata University, Buenos Aires Argentina.
- Post-doc position 1996-1997 Entomology section, Department of Plant Protection, Università degli Studi della Tuscia, Viterbo (Italy).

AREA OF INTEREST

- Biology and taxonomy of Hymenoptera Dryinidae
- Bionomic studies of Mymaridae, Trichogrammatidae (Hymenoptera) and Pipunculidae (Diptera), natural enemies of Homoptera Auchenorrhyncha (Plant and Leafhoppers)
- Biological control of *Spodoptera frugiperda* (Lep. : Noctuidae)

INSTITUTIONAL RESPONSIBILITIES

1. Member of the Graduated Department of the School of Natural Science and M. Lillo Institute, Tucumán University, 1994-1996
2. Secretary of the Sociedad Entomológica Argentina (SEA), March 1998-December 1999.
3. Member of the Directive Board of INSUE (Inst. Superior de Entomología "Dr. Abraham Willink"), School of Natural Science and M. Lillo Institute, Tucumán University, March 1998-April 2000.
4. Member of Directive Board of PROIMI Biotechnology. August 2000- May 2003 and May 2009- 2015.
5. Vocal of the Sociedad Entomológica Argentina (SEA), 1999-2005; 2020- .
6. Member of the Advisory Commission, Agricultural Sciences (CONICET), January 2010-February 2012.
7. Member of the Evaluation Committee for reports and promotions of the technical staff in PROIMI (2014-2016), alternate Coordinator (2017) and Coordinator (2018-2021).
8. Jury holder, selection process for the Director of the "UEL" Institute (FML-CONICET), April 2015.
9. Alternate Coordinator (2016) and Coordinator (2017) of the Advisory Commission for Researcher of Agrarian sciences of CONICET.
10. Full member of the ad hoc Commission of the Agricultural and Forestry Technology Area PICT call (FONCyT), first half of 2016.
11. Jury holder, selection process for the Director of CERELA Institute (CONICET-FML-FECIC), November 2016.
12. Director of the Zoology Scientific Area (Miguel Lillo Foundation), Tucumán, April 2015 to May 2017.

13. Member of the Advisory Commission of agrarian sciences (for reports and promotions) of CONICET (2018-19)
14. Member of the Directive Board of PROIMI-Biotecnología 2009-11 and 2019-21.-
15. Jury holder, selection process for the Director of the "UEL" Institute (FML-CONICET), October 2023.
16. Vice-Director of the Zoology Scientific Area (Miguel Lillo Foundation), Tucumán, Dicember 2023 to present.

ACADEMIC POSITIONS

- | | |
|---------------|--|
| 1987-1992 | Instructor. Course: “Invertebrate Zoology (Arthropods)” (undergraduate level), School of Natural Sciences, La Plata University, Argentina. |
| 1992-1993 | Instructor. Course: “Agricultural Zoology” (undergraduate level), School of Agriculture and Forest Sciences, La Plata University, Argentina. |
| 1994-1995 | Instructor. Course: “Arthropods” (undergraduate level), School of Natural Sciences and M. Lillo Institute, Tucumán University, Argentina. |
| 1995 | Professor. Course: “Biological Control of insects Pests” (undergraduate level), School of Natural Sciences and M. Lillo Institute, Tucumán Univ., Argentina. |
| 1996-1997 | Lecturer. Courses: “Agrarian Entomology”, “Agrarian Entomology (tropical and subtropical)”, School of Agriculture Science, Plant Protection Department, Università degli Studi della Tuscia (Viterbo – Italy) |
| 2001- present | Professor (invited and <i>Ad honorem</i>), Master in Entomology, School of Natural Sciences and M. Lillo Institute, Tucumán University, Argentina |
| 2003- present | Professor (invited and <i>Ad honorem</i>), Phd in Biology, School of Natural Sciences and M. Lillo Institute, Tucumán University, Argentina |
| 2007- present | Professor (invited and <i>Ad honorem</i>), Masters in Plant Production, Northeast National University, Faculty of Agricultural Sciences |
| 2013- present | Full Professor, Fund. M. Lillo, Ministry of Education (Argentina) |
| 2013- present | Guest teacher “Dottorato di Ricerca in Scienze delle Produzioni Vegetali e Animali”. DAFNE (Dipartimento di scienze e Tecnologie per l’Agricoltura, le Foreste, la Natura e l’Energia, Facoltà di Scienze Agrarie, Tuscia University - Viterbo, Italy) |

RESEARCH POSITIONS

- | | |
|----------------|---|
| 1986-1988 | Research Assistant, Entomology laboratory, School of Natural Sciences, La Plata University, Argentina. |
| 1988-1996 | Training, Doctoral and Post-doctoral Fellow, National Council for Scientific and Technical Research (CONICET), Argentina. |
| 1996-1997 | Post-doctoral fellow, Entomology section, Department of Plant protection, Università degli Studi della Tuscia, Viterbo (Italy). |
| 1997- Present | Researcher, National Council for Scientific and Technical Research (CONICET), Argentina. |
| 2013 - Present | Full Professor, Fund. Miguel Lillo (Tucumán, Argentina) |

SUPERVISING RESPONSIBILITIES

Ph.D. Thesis

As sponsor: Tucumán Univ. (6); La Plata Univ. (1); As co-sponsor: Tucumán Univ. (2); Córdoba Univ. (1); La Plata Univ. (2), Santiago del Estero Univ. (1)

Master Thesis

As sponsor: Tucumán Univ. (2) and Northeast Univ. (Corrientes) (1); as co-sponsor: La Rioja Univ. (1)

Post-graduate research projects

As sponsor: Tucumán Univ. (5), and La Plata University (1)

Final thesis for graduation

As sponsor: Chilecito University (La Rioja) (1), Tucumán Univ. (1); as Co-sponsor: Chilecito University (La Rioja) (1), Tuscia University (Italy) (1), Tucumán Univ. (1).

Director of the CONICET Researchers: Dra. EB Luft Albarracín (2012 - 2017); Dra. MV Coll (2014 - 2022); Dra. L Varone (2014 - 2022); Dr. DA Aquino (2015 – 2022).

MEMBER OF THE ACADEMIC STAFF FOR THESIS EVALUATION

Ph.D. Thesis: La Plata Univ. (11), Tucumán Univ. (9), Córdoba Univ. (2), Cuyo Univ. (2), Buenos Aires Univ. (1)

Master Thesis: Buenos Aires Univ. (2), Tucumán Univ. (2), Northeast Univ. (1), La Plata Univ. (1); Univ. San Pablo (Brazil) (1), Chilecito Univ. (1).

Final thesis for graduation: Buenos Aires Univ. (1), Tucumán Univ. (5)

POST-GRADUATED COURSES (mostly as invited professor)

- | | | |
|------|--|---|
| 1999 | "Biological Control of insects pests" | - CRILAR (La Rioja, Argentina), 60 h. - May 10-21 |
| 2000 | "Basic principles for the biological control of insects pests" | - PROIMI-Biotechnology (Tucumán, Argentina), 48 h. - October 23-28 |
| 2001 | "Lepidoptera pest of corn: control strategies" | - INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - November 3-7 |
| 2001 | "Corn diseases occasioned by virus and Mollicutes in Brazil and Argentina. Vectors" | - IFFIVE (INTA) and School of post-graduation (Córdoba University - Argentina), 32 h. - December 11-14 |
| 2002 | "Corn diseases occasioned by virus and Mollicutes in Brazil and Argentina. Vectors" | - IFFIVE (INTA) and School of post-graduation (Córdoba Univ. - Argentina), 32 h. - November 19-22 |
| 2003 | "Entomophagous insects" | - INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - March 3-7 |
| 2004 | "Aliment biotechnology" | - PROIMI and School of Biochemistry, Chemistry and Pharmacy (UNT), April 26-may 3 rd , 40 h. |
| 2004 | "Biological control as a resource in the IPM" and "Economic thresholds and levels of pest damages" | - Faculty of Agronomic Sciences, Northeast Univ., Corrientes, September 16 th , "Course for plant protection". |
| 2006 | "Entomophagous insects" | - INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - August 14-18 |
| 2007 | "Integrated management of pest and diseases" | - Faculty of Agronomic Sciences, Northeast Univ., May 14-18, "Course for plant protection". |
| 2008 | "Characterization, diagnosis, epidemiology and management of virus and mollicutes in plants" | - INTA-JICA International Course, INTA IFFIVE Cordoba, August 31th. |
| 2009 | "Basic principles for the biological control of insects pests" | - Natural Sciences Fac., Catamarca University. Nov. 23-27 2009 |
| 2010 | "Biological control and Integrated Pest Management" | - Faculty of Agronomic Sciences, Northeast Univ., July 26-27, "Course for plant protection". |
| 2010 | "Entomophagous insects" | - INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - September 06-10 |
| 2011 | "Management and breeding of | - INSUE and School of Natural Sciences (UNT- |

- agronomically important insects” Tucumán, Argentina), 25 h. - March 09-11
- 2011 “Biological control and Integrated Pest Management” - Faculty of Agronomic Sciences, Northeast Univ., November 7-11 , “Course for plant protection”.
- 2011 "Identification, biology and integrated management of noctuids of agricultural interest in Northern Argentina, with emphasis on soybeans" - Faculty of Agronomic Sciences, Northeast Univ., November 22-25
- 2011 “Hemiptera Auchenorrhyncha with agricultural importance in Argentina: taxonomy, biology and epidemiology” - School of Natural Sciences, La Plata University, Argentina. Nov. 29th – December 3th
- 2012 “Fundamentals for the biological control of insect pests” - PROIMI and School of Natural Sciences (UNT-Tucumán, Argentina), 45 h. - August 27-31
- 2012 Corn diseases and its vectors (Hemiptera: Auchenorrhyncha) Doctorado en Agronomía, UN Córdoba.at IPAVE-INTA. Nov 19 – 23.
- 2013 “Entomophagous insects” INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - March 11-15
- 2015 “Entomophagous insects” INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - March 16-21
- 2015 “Biological control and Integrated Pest Management” - Faculty of Agronomic Sciences, Northeast Univ., April 20-25 , “Course for plant protection”.
- 2015 “GMO, its effects at superior trophic levels” Faculty of Biochemistry and Biotechnology, UNT. 60 h – May 6-November 25.
- 2017 “Entomophagous insects” INSUE and School of Natural Sciences (UNT-Tucumán, Argentina), 40 h. - February 27-March 3.
- 2021 "I Latin American Course on Phytoplasms” Instituto Nacional de Innovación Agraria (INIA) de Perú, August 16-21; 45 h.

MANUSCRIPTS REVIEWER

Acta Zoológica Lilloana (ISSN 0065-1729), Rev. de la Soc. Entomológica Argentina (ISSN 0373-5680), Agriscientia (ISSN 0327-6244), RIA (ISSN 0325-8718), The Florida Entomologist (ISSN 0015-4040), Journal of the Kansas Entomological Society (ISSN 0022-8567), Zootaxa (ISSN 1175-5326), Interciencia (ISSN 0378-1844), Neotropical Entomology (ISSN 1519-566X), Folia entomológica mexicana (ISSN 0430-8603), African Invertebrates (ISSN 1618-5556), Revista brasileira de milho e sorgo (ISSN 1980-6477), The Pan Pacific Entomologist (ISSN 0031-0603), Rev. de la Fac. de Agronomía (La Plata) (ISSN 1669-9513), Revista del Museo Argentino de Ciencias Naturales Bernardino Rivadavia (ISSN: 0524-9511), International Journal of Pest Management (ISSN 0967-0874), African Journal of Plant Science (ISSN 1996-0824), Revista Colombiana de Entomología (ISSN 0120-0488), Horticultura Argentina (ISSN 0327-3431), Revista Brasileira de Entomología (ISSN 0085-5626), Duguesiana (ISSN 1405-4094); Revista de Biología Tropical (Int. J. Trop. Biol) (ISSN 0034-7744); Acta Entomológica Musei Nationalis Pragae (ISSN 0374-1036); Mémoires du Muséum national d’Histoire naturelle, Paris (ISSN 0078-9747); Entomological news, Philadelphia (ISSN: 0013-872X); European Journal of Entomology, Praga (ISSN 1210-5759); Bulletin of Insectology, Bologna (ISSN: 1721-8861); Euroasian Entomological journal (ISSN 1684-4866); Advances in Arthropoda Research (formely Israel Journal of Entomology) (ISSN 2224-6304); Acta Zoológica Mexicana (Nueva serie)(ISSN 0065-1737); SpringerPlus (ISSN 2193-1801); Journal of Hymenoptera Research (ISSN 1070-9428); Advances in Entomology (ISSN 2331-1991); Redia (ISSN 0370-4327); Zookeys (ISSN 1313-2989); Environmental Entomology (ISSN: 0046-225X); Planta

Daninha (ISSN 0100-8358); Journal of applied entomology (ISSN 1439-0418); Pest Management Science (ISSN 1526-4998); Journal of Insect Science (ISSN 1536-2442); Israel Journal of Entomology (ISSN 0075-1243); Insects (ISSN 2075-4450); Brazilian Journal of Biology (ISSN 1519-6984); Annals of applied Biology (ISSN 1744-7348); Entomological Communications (ISSN 2675-1305); Revista Peruana de Entomología (ISSN 2222–2529); Revista Peruana de Biología (ISSN 1561-0837); Scientific Reports (ISSN 2045-2322); Entomologia Generalis (ISSN: 0171-8177); Agronomía Colombiana (ISSN 0120-9965); Journal of Insect Biodiversity and Systematics (ISSN 2423-8112); Frontiers in Ecology and Evolution (ISSN 2296-701X); Agricultural & Forest Entomology (ISSN: 1461-9563); Ecological Informatics (ISSN 1574-9541); Entomologia Experimentalis et Applicata (ISSN 1570-7458); Tropical Plant Pathology (ISSN 1983-2052); Journal of Pest Science (ISSN 1612-4766); Insect Systematics & Evolution (ISSN 1876-312X); Plant Disease (ISSN 0191-2917); Journal of Economic entomology (ISSN 0022-0493).

ORIGINAL PAPERS

<https://orcid.org/0000-0002-9512-4254>

<https://scholar.google.com.ar/citations?user=Zknwk4EAAAAJ&hl=en>

<https://www.researchgate.net/profile/Eduardo-Virla>

PUBLISHED (175 including book chapters)

last five years

1. Espinosa, M.S. & E.G. Virla. Egg maturation by *Gonatopus bonaerensis* (Hymenoptera: Dryinidae) when provided with two species of planthopper (Delphacidae) as hosts. *Biological control* 117: 123-127, ISSN: 1049-9644. <https://doi.org/10.1016/j.biocontrol.2017.11.001>. 2018.
2. Bruzzone, O.A., Logarzo, G.A., Aguirre, M.B. & Virla, E.G. “Intra-host interspecific larval parasitoid competition solved using modelling and bayesian statistics”. *Ecological Modelling* 385: 114-123. ISSN 0304-3800. <https://doi.org/10.1016/j.ecolmodel.2018.07.011>. 2018.
3. Hill, J.G., Luft Albarracin, E, Coll Araoz, MV. & Virla EG. “Effects of host species and host age on biological parameters of *Anagrus virlai* (Hymenoptera: Mymaridae), an egg parasitoid of *Dalbulus maidis* (Hemiptera: Cicadellidae) and *Peregrinus maidis* (Hemiptera: Delphacidae)”. *Biological Control* 131: 74-80. ISSN: 1049-9644. <https://doi.org/10.1016/j.biocontrol.2018.12.002>. 2019.
4. Coll Aráoz, MV, V.G. Jacobi, P.C. Fernandez, E. Luft Albarracin, E.G. Virla, J.G. Hill & C.A.N. Catalán. Volatiles mediate host-selection in the corn hoppers *Dalbulus maidis* (Hemiptera: Cicadellidae) and *Peregrinus maidis* (Hemiptera: Delphacidae). *Bull. Entomol. Res.* 109(5): 633-642. doi:10.1017/S000748531900004X. 2019
5. Virla E.G., G.A. Van Nieuwenhove, F. Palottini, S.V. Triapitsyn & G.A. Logarzo. Spatial and seasonal distribution of egg parasitoids of the sharpshooter *Tapajosa rubromarginata* (Hemiptera: Cicadellidae: Proconiini) on feral johnson grass and commercial citrus host in Argentina. *Biological Control* 132: 81-88. ISSN: 1049-9644. <https://doi.org/10.1016/j.biocontrol.2019.02.004>. 2019
6. Virla E.G. & M.S. Espinosa. Observations on the mating behavior of a dryinid and first record of sexual cannibalism in the Hymenoptera. *Acta Ethologica* 22(2): 145-147. ISSN 0873-9749. DOI 10.1007 / s10211-019-00315-9. 2019.
7. Espinosa, M.S., G.A. Van Nieuwenhove & E.G. Virla. Host makes the difference: the effect of two planthopper host species on host-feeding and parasitism activities of the pincer wasp *Gonatopus bonaerensis*. *Biocontrol* 64(6): 655-664. ISSN 1386-6141. DOI 10.1007/s10526-019-09962-0. 2019.
8. Rozadilla G., NA Cabrera, EG Virla, N M Greco, CB McCarthy. "Gut microbiota of *Spodoptera frugiperda* (J.E. Smith) larvae as revealed by metatranscriptomic analysis" *Journal of Applied Entomology* 144: 351-363. DOI: 10.1111/jen.12742. 2020.
9. Hill, J.G., M.B. Aguirre, O.A. Bruzzone, E.G. Virla & E.B. Luft Albarracín. “Influence of adult diet on fitness and reproductive traits of the egg parasitoid *Anagrus virlai*, a potential biocontrol agent against the corn leafhopper". *Journal of Applied Entomology*, 144: 578-588. DOI: 10.1111/jen.12762. 2020.
10. Foieri A., Virla E.G., Maciá, A. & Marín de Remes Lenicov, A.M. “Effect of host plant on the fitness of the spittlebug *Notozulia entrepiana* (Berg) (Hemiptera: Cercopidae): Alternative method for rearing”. *Entomología experimentalis et applicata* 168: 618-625. DOI: 10.1111/eea.12950. 2020.
11. Coll Aráoz, MV, JG Hill, E. Luft-Albarracin, E.G. Virla & P.C. Fernandez. "Modern maize hybrids have lost volatile bottom-up and top-down control of *Dalbulus maidis*, a specialist herbivore" *Journal of Chemical Ecology* 46: 906-915, <https://doi.org/10.1007/s10886-020-01204-3>. 2020

12. Virla EG, MB Aguirre, GA Van Nieuwenhove, EB Luft Albarracín & GA Logarzo. “The relationship among host plant species, egg clutch size, and level of parasitism for the sharpshooter *Tapajosa rubromarginata*” *Entomología experimentalis et applicata* 168(12): 900-910. <https://doi.org/10.1111/eea.12988>. 2020.
13. Plem SC, Machuca LM, Gutierrez CG, Coll Aráoz MV, Van Nieuwenhove GA, Virla EG & Murguía MC “One-pot synthesis and insecticidal activity of 5-amino-1-aryl-1H-pyrazole-4-carbonitriles” *Research Journal of Chemistry and Environment*, 24(12): 102-108. 2020.
14. Luft Albarracin E., E.G. Virla & M. Ordano. “Influence of the site of oviposition on the level of egg parasitism in the corn leafhopper, *Dalbulus maidis* (Hemiptera: Cicadellidae)”. *Annals of the Brazilian Academy of Sciences* 93(1): e20190686 DOI 10.1590/0001-3765202120190686. 2021
15. Virla E.G., M.V. Coll Araoz & E. Luft Albarracin, "Estimation of direct damage to maize seedlings by the corn leafhopper, *Dalbulus maidis*, under different watering regimes". *Bulletin of Entomological research* 2021: 1-7 DOI: <https://doi.org/10.1017/S0007485321000079>. 2021
16. Manzano C., G. Benzal, G.A. Logarzo, M.V. Coll Aráoz, E.G. Virla & E.B. Luft Albarracín. “Biological traits of *Cosmocomoidea annulicornis* (Hymenoptera: Mymaridae), an egg parasitoid of the sharpshooter *Tapajosa rubromarginata* (Hemiptera: Cicadellidae), a vector of Citrus variegated chlorosis” *Biological Control* 157: 104589. <https://doi.org/10.1016/j.biocontrol.2021.104589>. 2021
17. Espinosa, M.S., Hill, J. & E.G. Virla. “Supplementary nutrient sources improve biological performance of *Gonatopus bonaerensis* (Hymenoptera: Dryinidae), decreasing unwanted destructive host-feeding” *Biological Control* 160: 104659 <https://doi.org/10.1016/j.biocontrol.2021.104659>. 2021
18. Rossini L., E.G. Virla, E. Luft Albarracín, G.A. Van Nieuwenhove & S. Speranza. "Evaluation of a physiologically based model to predict *Dalbulus maidis* (Hemiptera: Cicadellidae) occurrence in corn crops: validation in two different subtropical areas of South America" *Entomología Experimentalis et Applicata*. <https://doi.org/10.1111/eea.13066>. 2021
19. Manzano C, EG Virla, MV Coll Aráoz & EB Luft Albarracin “Ovigeny strategy of the parasitic wasp *Cosmocomoidea annulicornis*: effect of female age, feeding and host availability on reproductive traits”. *Bulletin of Entomological Research* 1-8; <https://doi.org/10.1017/S0007485321000766>. 2021
20. Manzano C, N. Melchert, MV Coll Aráoz, EG Virla & EB Luft Albarracin, “Performance and host finding behavior in relation to host age of *Cosmocomoidea annulicornis*, egg parasitoid of a sharpshooter vector of the citrus variegated chlorosis” *Biocontrol* 67: 27-37. <https://doi.org/10.1007/s10526-021-10121-7>. 2022.
21. Bruzzone, O.A., Aguirre, M.B., Hill, J., Virla, E.G., Logarzo, G. “Revisiting the influence of learning in predator functional response, how it can lead to shapes different from type III” *Ecology and Evolution* 12: e8593. DOI: 10.1002/ece3.8593. 2022.
22. Virla, Eduardo G.; Luft Albarracín, Erica; Díaz, Cecilia; Van Nieuwenhoven, Guido A; Fernández, Franco; Coll Aráoz, María V; Melchert, Nicolás; Conci, Luis; Giménez Pecci, María. “Bottom-up effect of nitrogen fertilization on the density of the corn leafhopper and its impact on both disease incidence and natural parasitism”. *Journal of Pest Science* <https://doi.org/10.1007/s10340-022-01500-9>. 2022
17. Manzano Carolina; Patricia Carina Fernández; Jorge Hill; Erica Luft Albarracín; Eduardo Virla; Maria Victoria Coll Aráoz. “Chemical ecology of the host searching behavior in an egg parasitoid: are common chemical cues exploited to locate hosts in taxonomically distant plant species?” *Journal of Chemical Ecology*. <https://doi.org/10.1007/s10886-022-01373-3>. 2022.
18. Kenis M, Benelli G, Biondi A, Calatayud PA, Day R, Desneux N, Harrison RD, Kriticos D, Rwomushana I, van den Berg J, Verheggen F, Zhang YJ, Agboyi LK, Ahissou RB, Ba MN, Bernal J, de Freitas Bueno A, Carrière Y, Carvalho GA, Chen XX, Cicero L, du Plessis H, Early R, Fallet P, Fiaboe KKM, Firake DM, Goergen G, Groot AT, Guedes RNC, Gupta A, Hu G, Huang FN, Jaber LR, Malo EA, McCarthy CB, Meagher Jr. RL, Mohamed S, Mota Sanchez D, Nagoshi RN, Nègre FN, Niassy S, Ota N, Nyamukondiwa C, Omoto C, Reddy Palli S, Pavela R, Ramirez-Romero R, Rojas JC, Subramanian S, Tabashnik BE, Tay WT, Virla EG, Wang S, Williams T, Zang LS, Zhang L, Wu K (2022) Invasiveness, biology, ecology, and management of the fall armyworm, *Spodoptera frugiperda*. *Entomologia Generalis* 43(2): 187-241. DOI: 10.1127/entomologia/2022/1659. 2022 (2023)
19. Defea Barbara, Eduardo G. Virla, Guillermo A. Logarzo, Rodney R. Cavichioli, Silvia Tapia, Máximo R. Aguirre, Fernando McKay, Santiago Martin & Susana L. Paradell. “Cicadellini sharpshooters (Hemiptera: Cicadellidae) from Argentina” *Zootaxa* 5205 (1): 055–072. <https://doi.org/10.11646/zootaxa.5205.1.4>. 2022
20. Hill J.G.; Virla E. G.; Manzano C.; Paradell S.L.; Luft Albarracin E. “Host specificity and performance on different hopper species of the egg parasitoid *Anagrus virlai*”. *Biocontrol* <https://doi.org/10.1007/s10526-023-10191-9> - 2023
21. Hill, J.G.; Virla, E.G.; Fernandez, P.C.; Luft Albarracín, E.; Coll Aráoz, M.V. "Dalbulus maidis and Peregrinus maidis, both phloem feeding hoppers, induce different volatile profiles in maize. Consequences for a natural enemy". *Journal of Pest Science* - <https://doi.org/10.1007/s10340-023-01612-w> - 2023
22. Virla E.G., Moya-Raygoza G. & A. Guglielmino “A review of the biology of the pincer wasps (Hymenoptera: Chrysoidea: Dryinidae)”. *Austral Entomology* 62: 274–299. <https://doi.org/10.1111/aen.12658>. 2023

23. Melchert, N., Manzano, C.; Virla, E.G.; Luft Albarracin, E. "On how nitrogen fertilization affects the host election and oviposition behavior of the Corn Stunt spiroplasma vector, *Dalbulus maidis* (Hemiptera: Cicadellidae)" *Arthropod-Plant Interactions* <https://doi.org/10.1007/s11829-023-09983-8> - 2023
24. Romero Sueldo, Galdys M, Eduardo G Virla, Mario Contarini, Stefano Speranza & Guido A Van Nieuwenhoven. "Evaluation of *Doru lineare* (Dermaptera: Forficulidae) effectiveness against *Spodoptera frugiperda* (Lepidoptera: Noctuidae) and its potential protection to maize seedlings" *Rev. de la Soc. entomol. Argentina* 82(2): 46-53. <https://doi.org/10.25085/rsea.820206>. 2023
25. Rossini, L, Di Sora N, Contarini M, Virla EG & Speranza S. Are the ladybugs *Cryptolaemus montrouzieri* and *Exochomus quadripustulatus* (Coleoptera: Coccinellidae) candidates predators of *Toumeyella parvicornis* (Hemiptera: Coccidae)? *Pest Management Science* DOI: 10.1002/ps.7996 - 2024.
26. Valverde L.; GA Van Nieuwenhove & Eduardo G. Virla "Egg parasitoid assemblages and their effectiveness against the soybean *Lepidoptera* defoliators in Argentina's subtropical producing región" *Entomología Experimentalis et applicata*, DOI: 10.1111/eea.13435 - 2024.
27. Virla, E. G. *Dalbulus maidis* (Hemiptera: Cicadellidae), vector del "achaparramiento o raquitismo" del maíz. Aspectos biológicos más relevantes, con especial referencia a los conocimientos generados en Argentina. *Miscelanea* 152, 50 pp. Fundación Miguel Lillo, Tucumán, Argentina. <https://doi.org/10.30550/msc/152>, 2024.

IN PRESS and/or SUBMITTED (5)

OTHERS (Scientific and technological divulgation): 18

MEETING PRESENTATIONS

National: 120

International: 43

Total: 164.-

ADVISORY BOARDS

1995-1996	Member of the editorial board of the Journal " <i>CIRPON, revista de investigaciones</i> " (ISSN 0326-3789), edited by CIRPON, Tucumán.
2000-2003	Member of the editorial board of the Journal " <i>Acta Zoologica Lilloana</i> " (ISSN 0065-1729), edited by IFML, Tucumán University, Argentina.
2006-2012	Member of the editorial board of the Journal " <i>Revista de la Sociedad Entomológica Argentina</i> " (ISSN 0373-5680), edited by SEA, Argentina.
2011-present	Associated editor of the journal " <i>Revista de la Facultad de Ciencias Agrarias</i> " (ISSN 0370-4661), edited by Univ. Nac. Cuyo, Mendoza.
1999-present	Advisory consuler for PICT-FONCyT grants (ANPCyT, Argentina) in the biological and agricultural areas.
2004-present	Advisory consuler for PIP grants (CONICET, Argentina) in the biological and agricultural areas.
2003- present	Advisory consuler for the valuations to ingress as researcher in CONICET, Argentina.
2018-2018	Advisory consuler for PIDUNTDF grants (Tierra del Fuego, Argentina) in the biological and agricultural areas
2020-2020	Advisory consuler for ASACTEI grants (Santa Fé, Argentina) in the biological and agricultural areas
2021-2023	Advisory consuler for CONCYTEC (FONDECyT) grants (Perú) in the biological and agricultural areas

RESEARCH FUNDINGS

1992-1994	BID - CONICET (National Council for Scientific and Technical Research) Program N° 313. Project: "Bio-systematic studies of entomological fauna of the NOA, and its role in sustentable natural resources". Researcher. Director: Dr. Abraham Willink.
1992-1998	National Institute of Agriculture (Argentina). PROMARC ("Mal de Rio Cuarto" National Project): sub-project: "Studies on the natural enemies of the planthoppers, vectors of the Mal de Rio Cuarto Disease of Corn". Director.

- 1994-1996 La Plata University. Project: "Homoptera vectors of pathogens agents to corn in Argentina", Researcher. Director: Dr. A.M.M. de Remes Lenicov.
- 1995 Science and Technical Council of Tucumán State (Argentina). Project: "Use of natural enemies to control the fall-armyworm (*Spodoptera frugiperda*) (Insecta: Lepidoptera: Noctuidae) in corn". Director.
- 1995-1996 Ministero dell'Università e della Ricerca Scientifica e Tecnologica d'Italia. Project: "Biodiversità e interazioni biocenotiche di artropodi in sistemi agricolo e forestali" Researcher. Director: Dr. Massimo Olmi.
- 1997 National Council for Scientific and Technical Research (CONICET), Argentina (PIA), Project: "Basic Studies on *Nematus desantisi* Smith, pest of willows in Argentina and Chile (Hymenoptera – Tenthredinidae – Nematinae)". Researcher. Director: Dr. P. Fidalgo.
- 1997-1999 National Council for Scientific and Technical Research (CONICET, Argentina), Project: "Biosystematic studies of the entomological fauna of the NOA and its role in sustentable natural resources". Researcher. Director: Dr. M. Lizarralde de Grosso
- 1997- 1999 National Agency for Science and Technology (Argentina). Project: "Monitoring of the "Mal de Río Cuarto" virus, the vector and detection of natural reservoirs and cultivated alternative hosts". Researcher. Director: Dra. G. Laguna.
- 1997- 2000 National Council for Scientific and Technical Research (CONICET, Argentina), Project: "Corn Stunt Spiroplasma. Ecological and Epidemiological Studies on the vectors in Argentina". Researcher. Director: Dr. Ana M. M. de Remes Lenicov.
- 2001- 2002 National Council for Scientific and Technical Research (CONICET, Argentina), Project: "The Dryinidae of the Argentinean Northwestern: systematic studies and about the relations with its hosts (Hymenoptera: Chrysidoidea)". Director.
- 1999- 2003 National Agency for Science and Technology (Argentina). Project: "Diffusion of the "Mal de Río Cuarto" disease to corn, wheat and oat, the vector and its natural enemies". Researcher. Director: Dra. G. Laguna.
- 2001-2003 National Council for Scientific and Technical Research (CONICET, Argentina), Project: "Biosystematic studies on Hymenoptera with economic importance in Argentinean Northwestern". Researcher. Director: Dr. P. Fidalgo
- 2003-2008 "ARS *Xylella fastidiosa* Diseases - Glassy-winged Sharpshooter" USDA strategic research plan. November 2003-November 2008. Researcher Cooperator. Directors: K. Hackett, E. Civerolo & R. Bennett -
- 2004-2005 CNPQ-PROSUL, web between Brazil, Argentina and Perú. Project: "Mollicutes e virus em milho: variabilidade, resistencia, vetores". Researcher Cooperator, Director: Dra. E. de Oliveira.
- 2004-2006 "Enfermedades emergentes en Argentina producidas por virus, viroides y mollicutes" Módulo 2: enfermedades producidas por mollicutes. Researcher Cooperator INTA-PICT-BID 1201/OC.PICTO 2002, OC/AR 08-12914.
- 2004-2005 National Institute of Agriculture (INTA, Argentina) Project: 522103. "Developments of strategies to a MIP program for the main diseases associated to the sequence corn-wheat-soybean". Director: Dra. G. Laguna. Researcher Cooperator
- 2005 -2007 National Agency for Science and Technology (Argentina). Project: "Diffusion of the Corn Stunt Spiroplasma, its vector *Dalbulus maidis* (DeLong & Wolcott) (Insecta Hemiptera, Cicadellidae), associated Cicadellidae, natural enemies and Poaceas as disease source in Argentina". FONCYT PIC 2003 N° 08-15029. Researcher. Director: Dra. G. Laguna.
- 2006-2007 "Dryinidae (Insecta: Hymenoptera) biodiversity in Argentina". International cooperation program SECyT (Argentina) – MAE (Italy). Code IT-PA05-AyE/XV/040. Argentinean director.

- 2006-2007 “Characterization of pathogenic bacteria to *Spodoptera frugiperda* (Lepidoptera: Noctuidae), key pest of corn in the NOA”. CONICET 2005 (PIP 6062). Researcher. Director Dr Mario Baigorí.
- 2006 - 2008 “Assessment of pathogenic strains of bacteria to control the fall armyworm (*Spodoptera frugiperda*)” PICTO-UNT 2004. (Código 761) Researcher. Director Dr Mario Baigorí.
- 2006 - 2009 “Integrated management of pests, weeds and diseases” INTA (Argentina) project code PNCER2344. Non-INTA cooperator
- 2008 - 2009 “Evaluation of population parameters of insect pests and their natural enemies under different environmental regimes” CONICET-MINCYT project code PME-2006-01312 Researcher. Director Dr Mario Baigorí.
- 2008 - 2009 “Bioecological studies on parasitoids of the Corn stunt vector (CSS), *Dalbulus maidis* (Hemiptera: Cicadellidae)” International cooperation program MINCYT (Argentina) – CONACYT(Mexico). Code 0710, Argentinean director.
- 2010 - 2011 “Parasitoid-host relationship in Pipunculidae (Diptera) associated with agriculture systems” International cooperation program MINCYT (Argentina)- CAPES (Brazil). Code BR/09/22, Argentinean director.
- 2009 - 2012 “Corn stunt Epidemiology. Importance of the vector population diversity, natural enemies and variables that influence the incidence of the disease” FONCYT-PICT project (argentina) code 0143. As Director
- 2010 - 2013 “Bioecological studies on the parasitoids of the Corn stunt vector (CSS), *Dalbulus maidis* (Hemiptera: Cicadellidae)” CONICET, code 112-200801-00918. Director
- 2011 - 2013 “Evaluation of the feasibility to applying biological control for *Tuta absoluta* (Lepidoptera: Gelechiidae), a pest recently entered in Italy” International cooperation program MINCYT (Argentina)-MAE (Italy). Code IT- 10/08. Argentinean collaborator.
- 2013 - 2017 “Egg parasitoids of vector of corn diseases (Hemiptera: Auchenorrhyncha). Valuation of the parasitism levels in two diverse regions of central Argentina”. PIP (CONICET) code 112 201201 00222. Director
- 2015 - 2018 “Bases for the rational management of Variegated Citrus Chlorosis: survey of potential vectors (Hemiptera: Cicadellidae) in citrus agroecosystems and selection of egg parasitoids for their biological control”. FONCYT PIC 2014 N° 0607. Director.
- 2015 - 2019 “Platform for the rational management of NOA pests through the use of biocontrollers” FONARSEC FITR n° 12 (Res. 494/15), ANPCyT, Researcher
- 2016 - 2020 “Bioecological studies of the CCS of corn Vector, *Dalbulus maidis*, and of the Rio Cuarto virus, *Delphacodes kuscheli* (Hemiptera: Auchenorrhyncha) in a Tritrophic system (plant-vector-egg parasitoid)”. PICT 2015 n° 1147; researcher.
- 2016 - 2022 “Implementation of a technology platform for biorefinery”. CONICET institutional project. P-UE-PROIMI-2016. Researcher.
- 2019 - “Dryinidae (Hymenoptera) venom effect in the development of vectors of plants diseases, and its possible biotechnological derivations”, project. M. Lillo Foundation cod. Z-0125-1, acting as director
- 2021 - “Study of the tritrophic relationship “corn - *Dalbulus maidis* - biocontrol agent” and the epidemiology of the “corn stunting of corn” Project PICT 2019 No. 01309, acting as a researcher.
- 2022- “Study of the relationships between the components of the patosystem '*Spiroplasma kunkelii* - Corn - *Dalbulus maidis*' and its implication in the epidemiology of the CSS”. Project PIP- CONICET 2021-2023 n° 0521, acting as a researcher.

TRAINING OR RESEARCH ACTIVITY

- Academic stay at INBIAL (Instituto de Biología de la Altura, UNJu-CONICET), May 20-24, 2002.
- Academic stay at the Univ. Nac. Agraria La Molina, in Lima (Peru), October 18-30, 2005 founded by EMBRAPA (Brazil) and INTA (Argentina).
- Research visit to the Department of Plant Protection (Universita della Tuscia - Viterbo, Italy) from October 1 to 30, 2006, founded by an international cooperation agreement SECyT-MAE. During the stay, a one-week visit to Prof. Gennaro Viggiani (University of Napoli - Portici) was carried out.
- Research visit to the Department of Plant Protection (Universita della Tuscia - Viterbo, Italy) from October 1 to 30, 2007, founded by international cooperation agreement SECyT-MAE.
- Research visit to the Laboratory of Insect Ecology (CUCBA, University of Guadalajara - Mexico) from August 25 to September 16, 2008, founded by international cooperation agreement MICyT-CONACyT MEX 0710. With insect collection trips to Colima, Zapopan, El Grullo and Guachinango (Jalisco).
- Research visit to the Dipartimento di Scienze e Tecnologie per l'Agricoltura, le Foreste, la Natura e l'Energia (DAFNE, UNITUS) to carry out activities related to the development of the project "Evaluation of the feasibility of applying biological control for Tuta absoluta (Lepidoptera: Gelechiidae), pest recently introduced in Italy", from September 25 to October 7, 2013 and within the framework of Bilateral Cooperation MINCyT-MAE (IT/10/08).
- Academic Visit to DAFNE (Dipartimento di scienze e Tecnologie per l'Agricoltura, le Foreste, la Natura e l'Energia, Facoltà di Scienze Agrarie, Università degli Studi della Tuscia, Viterbo, Italy), to give seminars in the "Dottorato di Ricerca in Scienze delle Produzioni Vegetali e Animali". May 2-31, 2019. Funded by the Univ. della Tuscia (Italy).
- Academic Visit to DAFNE (Dipartimento di scienze e Tecnologie per l'Agricoltura, le Foreste, la Natura e l'Energia, Facoltà di Scienze Agrarie, Università degli Studi della Tuscia, Viterbo, Italy), for the delivery of seminars in the "Dottorato di Ricerca in Scienze delle Produzioni Vegetali e Animali". September 1 to October 31, 2022. Funded by the Univ. della Tuscia (Italy).