

CURRICULUM VITAE

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ADDRESS

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CURRENT POSITION

Professor/Researcher. Laboratorio de Biología de Vectores, Instituto de Zoología Tropical. Facultad de Ciencias, Universidad Central de Venezuela. Caracas. Venezuela.

EDUCATION

Ph.D in Ecology (1986-1993). School of Science. Universidad Central de Venezuela. Venezuela.

Licentiate in Biology (1978-1984). Major in Ecology. School of Science. Universidad Central de Venezuela. Venezuela.

TEACHING EXPERIENCE

- General Ecology (Undergraduate)
- Numerical Ecology and Multivariate Statistics (Undergraduate and Graduate)
- A primer of Biology (Undergraduate)
- Animal Biology; Animal Physiology; Evolution (Undergraduate)
- Community and Population Ecology (Graduate)
- General Entomology, Medical Entomology and Vector Ecology (Graduate)
- Numerical Ecology and Multivariate Statistics (Undergraduate and Graduate)

RESEARCH SCOPE

- Population and Community Ecology
- Aquatic Insect Ecology
- Vector Insect Ecology
- Medical Entomology & Epidemiology

RELEVANT RESEARCH EXPERIENCE

1999-00 Postdoctoral Researcher. Département de Sciences Biologiques, Faculté de Arts et des Sciences, Université de Montréal. Succursale A, Montréal. Canada.

1994- Professor / Researcher. Vector Biology Laboratory. Instituto de Zoología Tropical. School of Sciences. Universidad Central de Venezuela. Caracas. Venezuela.

1998- Invited Professor, Entomology Courses. Tropical Medical Sciences School. Universidad Central de Venezuela, Caracas, Venezuela.

1995- Invited Researcher. Blackfly laboratory. Centro Amazonico para la Investigacion y Control de enfermedades endemicas. CAICET. Pto. Ayacucho. Amazonas. Venezuela.

1993- Invited Professor, Entomology Courses. Agronomic School, Universidad Central de Venezuela, Maracay (Aragua State). Venezuela.

1990-94 Associated Researcher. Vector Biology Laboratory. Instituto de Zoología Tropical.

School of Sciences. Universidad Central de Venezuela. Caracas. Venezuela.

1986-93 Ph.D student. Vector Biology Laboratory. Instituto de Zoología Tropical School of Sciences. Universidad Central de Venezuela. Caracas. Venezuela.

1985-86 Research Assistant. Ecophysiology Vegetal Laboratory and Animal Behavior Laboratory. Instituto de Biología Experimental. Facultad de Ciencias Universidad Central de Venezuela. Caracas. Venezuela.

1980-84 Teaching Assistant. Biology School of Sciences. Universidad Central de Venezuela. Caracas. Venezuela.

SUBMITTED PUBLICATIONS

Grillet, M. E., Villamizar, N., Cortez, J., Frontado, H., Escalona, M., Vivas-Martínez, S. & M. G. Basáñez. 2004. Diurnal biting periodicity of parous *Simulium* (Diptera: Simuliidae) vectors in the onchocerciasis Amazonian focus. Submitted to *Acta Tropica*

Alfonso, D., **Grillet, M. E.**, Liria, J., Navarro, J. C., Weaver, S. C. & R. Barrera. 2004. Ecological Characterization of the Aquatic Habitats of Mosquitoes (Diptera: Culicidae) in Endemic Foci of Venezuelan Equine Encephalitis in Western Venezuela. Submitted to *Journal of Medical Entomology*

REFEREED PUBLICATIONS (1994-04)

McCreadie, J., Hamada, N. & **M. E. Grillet**. 2004. Spatial and temporal distribution of preimaginal blackflies in neotropical streams. *Hidrobiología* 513(1): 183-196.

Grillet, M.E., Legendre, P. & D. Borcard. 2002. Community structure of Neotropical wetland insects in Northern Venezuela. I. Temporal and environmental factors. *Archives für Hydrobiologie*, 155 (3): 413-436.

Grillet, M.E., Legendre, P. & D. Borcard. 2002. Community structure of Neotropical wetland insects in Northern Venezuela. II. Habitat type and environmental factors. *Archiv für Hydrobiologie*, 155 (3): 437-453.

Grillet, M.E., Basáñez, M.G., Vivas-Martínez, S., Villamizar, N., Frontado, H., Cortez, J., Coronel, P. & Botto, C. 2001. Human Onchocerciasis in the Amazonian Focus of Southern Venezuela: Spatial and Temporal Variations in Biting and Parity Rates of Black fly (Diptera: Simuliidae) Vectors. *Journal of Medical Entomology*. 38(4): 520-530.

Hamada, N. & **Grillet, M.E.** 2001. Black flies (Diptera: Simuliidae) of the Gran Sabana (Venezuela) and Pacaraima Region (Brazil): Distributional Data and Identification Keys for Larvae and Pupae. *Entomotrópica*. 16(1): 29-49.

Grillet, M.E. 2000. Environmental factors associated with the spatial and temporal distribution of *Anopheles aquasalis* and *Anopheles oswaldoi* in wetlands of an endemic malaric area in northeastern Venezuela. *Journal of Medical Entomology* 37(2): 231-238.

Barrera, R., **Grillet, M.E.**, Rangel, Y., Berti, J., & Ache, A. 1999. Temporal and spatial

patterns of malaria re-infestation in northeastern Venezuela. *American Journal of Tropical Medicine and Hygiene* 61(5): 784-790.

Grillet, M.E., Montañez, H. & J. Berti. 1998. Estudio Biosistemático de *Anopheles aquasalis* (Diptera: Culicidae) y sus implicaciones para el control de la malaria en el estado Sucre: Ecología de sus criaderos. (Biosystematic study on *Anopheles aquasalis* (Diptera Culicidae) in relation to the malaria control in northeastern Venezuela: Ecology of the breeding sites). *Boletín de la Dirección de Malariología y Saneamiento Ambiental* XXXVIII (1): 38-46.

Barrera, R., **Grillet, M.E.**, Rangel, Y., Berti, J., & Ache, A. 1998. Estudio Eco-epidemiológico de la Reinfestación con Malaria en el Nor-oriente de Venezuela mediante Sistemas de Información Geográfica y Sensores Remotos. (Eco-epidemiology study on malaria re-infestation in northeastern Venezuela using GIS techniques). *Boletín de la Dirección de Malariología y Saneamiento Ambiental*, XXXVIII (1): 14-30.

Vivas-Martínez, S.; Basañez, M. G.; **Grillet, M. E.**; Weiss, H.; Botto, C., García, M. Villamizar, N. & D. Chavasse. 1998. Onchocerciasis in the Amazonian focus of southern Venezuela: altitude and blackfly species composition as predictors of endemicity to select communities for ivermectin control programmes. *Transactions Royal Society of Tropical Medicine and Hygiene*, 92: 613-620

Grillet, M.E. & Barrera, R. 1997. Spatial and temporal abundance, substrate partitioning and co-occurrences in a guild of neotropical blackflies. *Hydrobiologia*, 345(2-3): 197-208.

Botto C., Planchart S., Martínez N., Castro L., Gelrud A., Vivas L. & **M. E. Grillet**. 1997. Onchocerciasis hyperendemic in Unturán, southern Venezuela. *Transactions Royal Society of Tropical Medicine and Hygiene*, 91: 150-152.

Grillet, M.E.; Montañez, H. & J. Berti. 1995. Temporal abundance of *Anopheles aquasalis* larvae in a malarian area in northern Venezuela and associated factors. *Journal American Mosquito Control Association*, 11(3): 344.

Grillet, M. E.; Barrera, R. & J., Conn. 1995. *Simulium metallicum* cytospecies E larva habitat characterization in the Altamira focus of onchocerciasis, northern Venezuela *Medical and Veterinary Entomology*, 9, 195-201.

Grillet, M.E.; Botto, C.; Basañez, M.G.; Barrera, R. 1994. Vector Competence of *Simulium metallicum* (Diptera: Simuliidae), in two endemic areas of human onchocerciasis in northern Venezuela. *Annals of Tropical Medicine and Parasitology*, 88 (1): 65-75.

SCIENTIFIC MEETINGS (1994-04)

Botto, C., Barrera, R., Delgado, L., Escalona, **M.**, **Grillet, M. E.**, Basañez, M. G., Simancas, M., Vivas-Martínez, S., Villamizar, N., Coronel, P., Cortés, J. & H. Frontado. 2004. Geographical patterns of onchocerciasis in southern Venezuela. IX European multicolloquium of Parasitology, Valencia, Spain: Sunday 18 – Friday 23 July 2004.

Grillet, M. E. 2004. (**Speaker**). Cómo la ecología de los insectos vectores contribuye a entender la dinámica de transmisión de la oncocercosis en Venezuela. XXIII Jornadas de Parasitología “José Witremundo Torrealba”. 26 de Junio de 2004. Cumaná, Sucre Venezuela.

Grillet, M. E. 2003. (**Speaker**). Aproximaciones estadísticas para el modelaje de la distribución espacial y temporal de insectos. XVIII Congreso Venezolano de Entomología Maracay, Aragua. Venezuela. 1-4 de Julio de 2003

Frontado, H., Villamizar, N., Cortéz, J. & **M. E. Grillet**. 2003. Caracterización ecológica de hábitat acuático de *Simulium guianense* s.l. (Diptera: Simuliidae) al sur de Venezuela. XVII Congreso Venezolano de Entomología. Maracay, Aragua. Venezuela. 1-4 de Julio de 2003

Grillet, M.E. 2001. Reparto de la variabilidad ambiental asociada a la estructura de comunidades de insectos de humedales. IV Congreso Venezolano de Ecología, Mérida (Mérida), Venezuela. 29 Octubre-2 de Noviembre 2001.

Alfonzo, D.; **M.E. Grillet**, J.C. Navarro; J. Liria, S.C. Weaver, R. Salas; J. Freier & R. Barrera. 2001. Estructura comunitaria de mosquitos preadultos en bosques y su periferia en la región del Catatumbo, Estado Zulia. IV Congreso Venezolano de Ecología, Mérida (Mérida), Venezuela. 29 Octubre-2 de Noviembre 2001.

Grillet, M.E.; Basáñez, M.G., Vivas-Martinez, S.; Villamizar, N.; Frontado, H.; Cortez, J. P. Coronel & Botto, C. 2001. Biting and Parity Rates of *Simulim* vectors of Amazonian onchocerciasis vary spatially and seasonally. Third International Congress of Vector Ecology, Barcelona, Spain. 16-21 September 2001.

Grillet, M. E. 2001. Ecología de los Vectores de la Oncocercosis. XX Jornadas de la Sociedad Parasitológica “José Witremundo Torrealba”. CAICET, Puerto Ayacucho Amazonas. 14 de Julio de 2001.

Grillet, M.E., M.G. Basáñez, N. Villamizar, H. Frontado, J. Cortez, P. Coronel, M. Escalona & C. Botto. 2000. Vectores de oncocercosis en el foco Amazónico, antes y durante la distribución de ivermectina: competencia vectorial. I Jornadas de Investigación en el Estado Amazonas, 27-29 de Noviembre, Universidad Central de Venezuela, Caracas Venezuela.

Grillet, M.E., Basáñez, M.G., Vivas-Martínez, S., Villamizar, N., Frontado, H., Cortez, J. Coronel, P. & Botto, C. 2000. Oncocercosis en el foco Amazónico del sur de Venezuela variaciones espaciales y temporales en las tasas de picada y paridad de los simúlido: vectores. I Jornadas de Investigación en el Estado Amazonas, 27-29 de Noviembre Universidad Central de Venezuela, Caracas. Venezuela.

Grillet, M.E., M.G. Basáñez, N. Villamizar, H. Frontado, J. Cortez, P. Coronel, M. Escalona & C. Botto. 2000. Aspects of the vectorial competence of onchocerciasis vectors in the Amazonian focus of southern Venezuela before and during ivermectin distribution. The British Simuliid Group No. 15: 8-10. 23rd Annual meeting of the British Simuliid Group, April

12, 2000. University of Salford, United Kingdom.

Basáñez, M.G., **M.E. Grillet**, S. Vivas-Martínez, M. Escalona, H. Frontado, N. Villamizar J. Cortez, P. Coronel, W. Bourgeon, N. Vasquez & C. Botto. 2000. Pre-ivermectin entomological indices in the onchocerciasis Amazonian focus of southern Venezuela. *The British Simuliid Group No. 15*: 11-14. 23rd Annual meeting of the British Simuliid Group April 12, 2000. University of Salford, United Kingdom.

Grillet, M. E. (Simposium. Invited Speaker). 2000. Factors associated with the spatial and temporal distribution patterns of neotropical black flies in Venezuela. Simposium: "Ecology and Behaviour of immatures". *Black Flies in the New Millenium: An International Meeting of Black Fly Workers*, Brock University, St. Catharines, ON, Canada. June 17-21, 2000. Abstracts: pages 19-20.

Basáñez, M.G., **M.E. Grillet**, S. Vivas-Martínez, M. Escalona, H. Frontado, N. Villamizar J. Cortez, P. Coronel, W. Bourgeon, N. Vasquez & C. Botto. 2000. An overview of entomological studies in relation to onchocerciasis transmisión and control in the Amazonian focus of southern Venezuela. *Black Flies in the New Millenium: An International Meeting of Black Fly Workers*, Brock University, St. Catharines, ON, Canada June 17-21, 2000. Abstracts: 31-32.

Grillet, M.E., P. Legendre & D. Borcard. 2000. Temporal and environmental components associated with the community structure of neotropical wetland insects. *The Ecological Society of America 85th Annual Meeting*. August 6-10, 2000, Snowbird, Utah, USA. Abstracts: 282.

Hamada, N. & **M.E. Grillet**. 2000. Blackflies (Diptera: Simuliidae) from the grand savanna region of Venezuela. *XXI International Congress of Entomology*. 20-26 August, Foz de Igaussu, PR, Brazil. Abstracts: 129.

Hamada, N., P. Adler & **M.E. Grillet**. 2000. Cytotaxonomy and homosequential species of the *Simulium perflavum* species group (Diptera: Simuliidae) from Brazil and Venezuela. *XXI International Conference of Entomology*. 20-26 August, Foz do Iguassu, Brazil. Abstracts: 569.

Alfonzo, D.; **M.E. Grillet**, J. Liria, J.C. Navarro, N. Torres, J. Freier, R. Salas, S.C. Weaver & R. Barrera. 2000. Linking epizootic and enzootic cycles of Venezuelan Equine Encephalitis: The pre-adult mosquito interphase. *XV International Congress of Tropical Medicine and Malaria*. Cartagena, Colombia 2000.

Barrera, R., S.C. Weaver, R. Salas, J. Freier, **M.E. Grillet**, J.C. Navarro, J. Liria & N. Torres. 1999. Mecanismos de emergencia de la Encefalitis Equina Venezolana. *XV Congreso Venezolano de Entomología*, Coro, Falcon, Venezuela.

Grillet, M.E.; Vivas-Martinez, S.; Villamizar, N.; Frontado, H.; Cortez, J., Botto, C. & M.G. Basanez. 1998. Spatial and temporal variations in biting activity of the *Simulim* vectors in the Amazonian onchocerciasis focus, southern Venezuela. *Fourth International Congress of Dipterology*, Oxford, UK. 6-13 September 1998.

Basañez, M.G., **Grillet, M.E.**; Vivas-Martinez, S.; Frontado, H., Villamizar, N.; Cortez, J. & L. Bueno. 1998. Parasite and vector survival in the blackflies of the Amazonian onchocerciasis focus of southern Venezuela in relation to the implementation of ivermectin control programmes. Fourth International Congress of Dipterology, Oxford, UK. 6-13 September 1998.

Vivas-Martinez, S.; Basañez, M.G.; **Grillet, M. E.**; Weiss, H.; Villamizar, N.; Garcia M. & C. Botto. 1998. Onchocerciasis in the Amazonian focus of southern Venezuela: altitude and blackfly composition as predictors of endemicity in the selection of communities for ivermectin control programmes. Fourth International Congress of Dipterology, Oxford, UK. 6-13 September 1998.

Grillet, M.E., Vivas-Martínez, S., Villamizar, N., Frontado, H., Cortez, J., Coronel, P. & Basañez, M.G. 1998. Variaciones espaciales y temporales en la actividad de picada de los simúlidos vectores de oncocercosis en el foco amazónico de Venezuela. Jornadas XV Aniversario del CAICET “Rafael Rangel”, Puerto Ayacucho, 10-12 de Octubre, 1998.

Basañez, M.G., **Grillet, M.E.**, Vivas-Martínez, S., Frontado, H., Villamizar, N.J., Cortez, J. & Bueno, L. 1998. Sobrevivencia de vectores (*Simulium*) y de parásitos (*Onchocerca volvulus*) en el foco amazónico del sur de Venezuela. Jornadas XVI Aniversario de CAICET “Rafael Rangel”, Puerto Ayacucho, 10-12 de Octubre, 1998.

Vivas-Martínez, S., Basañez, M.G., **Grillet, M.E.**, Weiss, H., Villamizar, N.J., García, M. & Botto, C. 1998. Oncocercosis en el foco amazónico del sur de Venezuela: altitud y composición de simúlidos como indicadores de endemicidad para la selección de comunidades en el programa de control con ivermectina. Jornadas XVI Aniversario de CAICET “Rafael Rangel”, Puerto Ayacucho, 10-12 de Octubre, 1998.

Grillet, M.E.; Vivas, S.; Villamizar, N.; Frontado, H.; Cortez, J. & Basañez, M.G. 1997. Aspects of Onchocerciasis Transmission in Southern Venezuela, Pre-Ivermectin Treatment Biting Activity and Infection Rates of the *Simulium* vectors. Second International Congress of Vector Ecology, Orlando, Florida, USA. 19-24 de Octubre de 1997.

Grillet, M.E.; Montanez, H. & J.Berti. 1997. Estudio biosistemático de *Anophele aquasalis* y sus implicaciones para el control de la malaria en el estado Sucre: Ecología de sus criaderos”. V Jornadas Científicas “Doctor Arnaldo Gabaldon”, Maracay, 1-3 de Octubre. Venezuela.

McCreadie, J., **Grillet, M.E.**, Hamada, N. 1997. Blackflies (Diptera: Simuliidae) of the tropical grasslands of Venezuela. Entomological Society of America, Annual Meeting December, 1997.

Vivas-Martinez, S. Rojas; M.G. Basañez; C. Botto, Grillet, M. E.; Garcia, M. Villamizar, N. Frontado, M. & D. Chavasse. 1997. Relationship between onchocerciasis endemicity altitude and blackfly composition along two fluvial axes of the Upper Orinoco Region, South Venezuela. British Simuliid Group Annual Meeting. London. UK. December, 1997.

Grillet, M.E. 1996. Spatial-temporal dynamics of blackflies related to onchocerciasis: transmission (Dinámica Espacio-Temporal de Simúlidos e Implicaciones para la transmisión de Oncocercosis). *In Spanish* en el “Simposio Dinámica poblacional de artrópodos vectores de enfermedades”. *VI Latinoamericano Congreso de Entomología*. 26-30 de Mayo de 1996. Mérida, México

Grillet, M.E. 1995. Aspectos entomológicos en la transmisión de oncocercosis. XIV Reunión de la Sociedad Parasitológica Venezolana. Jornadas " José Witremundo Torrealba". 14-16 de Julio de 1995, Puerto Ayacucho, Amazonas. Venezuela. Resumen de Publicaciones.

Grillet, M.E. & H. Montañez. 1995. Community structure of anopheline larvae (Diptera Simuliidae) in wetlands from northeastern Venezuela. (Estructura comunitaria de anofelinos: (Diptera: Simuliidae) en humedales nororientales venezolanos). *In Spanish*. III Congreso Latinoamericano de Ecología. 22-28 de Octubre de 1995. Mérida, Mérida, Venezuela.

Grillet, M.E.; Montañez, H. & J. Berti. 1995. Temporal abundance of *Anopheles aquasalis* larvae in a malarian area in northern Venezuela and associated factors. 61 st Annual Meeting of American Mosquito Control Association Mosquito Vector control and Biology in Latin America. Fifth Symposium 19 - 23 de Marzo de 1995, Portland, Oregon, USA. *Journal of the American Mosquito Control Association*, 11(3): 344.

Grillet, M.E.; Barrera, R.; Conn, J. & C., Botto. 1994. A multidisciplinary study of *Simulium metallicum* in northern Venezuela. *Annual Meeting of American Mosquito Control Association*, 10-14, April 1994, San Diego, California, USA.

FELLOWSHIPS, GRANTS, AWARDS, SUPPORT (1994-2004)

2004- 2006 Grant of the Consejo de Desarrollo Científico y Humanístico, C.D.C.H. Universidad Central de Venezuela. Caracas. Venezuela. Project “Dispersal and Survival patterns of *Anopheles aquasalis* (Diptera: Culicidae), main vector of malaria in northeastern Venezuela”

2002-2005 Grant of the Consejo Nacional de Investigaciones Científicas- (FONACIT) Project “Dispersal pattern of *Simulium guianense* s.l., main vector of onchocerciasis in the highlands of Orinoco River, Amazonas State, Venezuela”

2002-2005 Grant of the Consejo Nacional de Investigaciones Científicas- (FONACIT) Project “Dispersal and survival patterns of *Anopheles aquasalis* in a malarious area and Spatial pattern of malaria in northeastern Venezuela”

2002-2005 Grant of the Consejo Nacional de Investigaciones Científicas- (Fonacit), Project “Spatial and temporal patterns of malaria in northeastern Venezuela”

1999-2000 Fellowship of Post-Doctoral Training in The Universidad de Montreal, Montreal Canada. Consejo de Desarrollo Científico y Humanístico, C.D.C.H. Universidad Central de Venezuela. Caracas. Venezuela

1995-99 Grant of the World Bank-Venezuelan Government projects, Panamerican Health Organization (PAHO) (Latinoamerican World Health Organization). Project "Entomological aspects of transmission dynamics of onchocerciasis in the highlands of Orinoco River, Amazonas State, Venezuela, before of the treatment with ivermectin"

1993-98 Grant of the Consejo Nacional de Investigaciones Científicas (CONICIT), Project "Spatial and temporal patterns of anopheline larvae and their ecological factors associated in a malarious area in northeastern Venezuela, before of the application of vector biological control strategies".

SCIENTIFIC AND PROFESIONAL SOCIETIES

- Ecological Society of America
- American Mosquito Control Association
- Society for Vector Ecology
- Ecological Society of Venezuela
- Entomological Society of Venezuela

COLLABORATIONS AND REFERENCES

1. Basañez, M.G. Wellcome Trust Centre for Epidemiology of Infectious Disease (WTCEID), Department of Zoology, University of Oxford, South Parks Road, Oxford OX1 3PS (**Project:** *Matemathical modeling of transmission dynamics of onchocerciasis in southern Venezuela*).
(http://www1.imperial.ac.uk/medicine/about/divisions/pcphs/ide/eph_msc_modern1/people/m.basanez.html)
2. Botto, C. Centro Amazonico para Investigacion y control de Enfermedades Tropicales (CAICET), Apartado Postal 59, Puerto Ayacucho 7101, Estado Amazonas, Venezuela (**Project:** *Eco-epidemiology of onchocerciasis in southern Venezuela*).
3. Barrera, R. Center for Disease Control and Prevention. National Center for Infectious Diseases Division of Vector-Borne Infectious Diseases. Dengue Branch, San Juan Laboratories. San Juan, Puerto Rico. USA. (**Project:** *Biology and Ecology of vector insects from Venezuela*).
4. Hamada, N. National Institute for Research in the Amazon (INPA), Brasil. Cx. P. 478. 69.011.970 Manaus, Brasil. (**Project:** *Cytotaxonomy and Community Ecology of Amazonian blackflies*).
(<http://lattes.cnpq.br/buscaoperacional/detalhepesq.jsp?pesq=1512994126787334>)
5. McCreddie, J. Department of Biological Sciences, South Alabama University, LSCB 124, Mobile, USA, 366888-0002. (**Project:** *Biodiversity and Community Ecology of grassland streams*).
(<http://www.southalabama.edu/arts&sci/faculty.html#biology>)

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