**Patrick Lavelle详细信息：**



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| **Home address**: 🖂 Av 9N # 49N-19Cali, Colombia | **Professional address**:Institute of Ecology and Environmental Sciences Pierre and Marie Curie University (Paris VI)Centre IRD Ile de France32 rue Varagnat, 93143 Bondy, FrancePresent address: Av. 9N # 49N – 19Cali, Colombia |

**E-mail:** Patrick.Lavelle@bondy.ird.fr

 **Patrick Marie LAVELLE**

Emeritus Professor of Ecology at UPMC Paris VI University

Member of the French Academy of Science (Correspondant, section Biologie)

Member of the European Academy of Science

General

**Date and place of birth:** April 9th 1948; Chambéry, Savoie, France)

**Scientific speciality**: Soil Ecology, earthworms and soil macrofauna, sustainable use of tropical soils, Indicators of soil ecosystem services, global environment issues (nutrient cycling).

**Field Research experience**: Europe (France, Switzerland), Africa (Ivory Coast, Burkina Faso, Congo, Senegal), America (Mexico, Nicaragua, French Guyana, Martinique, Peru, Brasil, Argentina, Venezuela, Colombia), Asia (India, China), Middle East (Kuweit, Iran, Saudi Arabia, Jordan)

**Languages:**

French, Spanish, English and Portuguese.

Professional experience

2014 **Invited Researcher EMBRAPA floresta. Curitiba, Parana, B**rasil.

2008 – 2012 **Directeur de Recherche IRD posted at Centro Internacional de Agricultura Tropical (TSBF-Latin America).**

 **Invited Researcher Museu Paraense Emilio Goeldi (Belem, Brasil)**

2001 – 2008 **Directeur de l’UMR 137 BIOSOL** (Biodiversité et Fonctionnement des Sols)

1992 – 2002 **Directeur Laboratoire d’Ecologie des Sols Tropicaux** (EA IRD/UPMC)

1968 – 2008 **Enseignant Chercheur** **Professeur Classe Exceptionnelle),** University of Paris VI, Ecology

Creation and directorship of Laboratoire d’Ecologie des Sols tropicaux and UMR BIOSOL, Centre IRD, Bondy, France

Feb-July 2004 **Invited Researcher**

 Universidade Federal Rural da Amazonia

 Belem, Parà, Brazil

1991 **Invited researcher**

Centre ORSTOM, Fort de France, Martinique

MOST Laboratory

1980-1981 **Investigador Titular**

Instituto de Ecologia de Mexico

Creation of a Research unit in Soil Biology

Thesis supervisions

32 Doctorate theses supervised between 1985 and now (22 got permanent positions in research). Three currently developed.

Projects funded and coordinated

Twenty four projects coordinated, of which 4 international with multiple partners (EU programs STD, INCO and 5th PCRD). Ongoing projects in Brasil and Colombia.

Publications

220 publications in international journals, 16 others, 50 book chapters, 1 edited book, 1 textbook,

* 7822 quotations (source ISI Web of Science, 18 January 2015); H index: 47; Research Gate index: 42.70.
* Google Scholars: >17000 quotations.

3 Selected publications:

1. Lavelle, P., R. Dugdale, A. Asefaw Behere, E. carpenter, A. M. Izac, D. karl, J. lemoalle, F. Luizao, P. Treguer, and B. Ward. 2005. Nutrient Cycling and Fertility. *in* Millennium Ecosystem Assessment [www.millenniumecosystemassessment.org](http://www.millenniumecosystemassessment.org). Coordinating Lead Author.
2. Lavelle, P., and A. V. Spain. 2001. Soil Ecology. Kluwer Scientific Publications, Amsterdam. 671p.
3. Lavelle, P., L. Brussaard, and P. Hendrix. 1999. Earthworm management in tropical agroecosystems. CAB-International, Wallingford, UK.

3 recent ones :

1. Grimaldi M*, et al.* (2014) Ecosystem services of regulation and support in Amazonian pioneer fronts: searching for landscape drivers. *Landscape Ecology* DOI 10.1007/s10980-013-9981-y

2. Lavelle P, Rodríguez N, Arguello O, & et al. (2014) Soil ecosystem services and land use in the rapidly changing Orinoco River Basin of Colombia. *Agriculture,* *Ecosystems and Environment* 185: 106-117.

3. Lavelle P., Moreira F., & Spain A. eds (2014) *Biodiversity: Conserving Biodiversity in Agroecosystems.*), Vol 2, pp 41-60.

Patent/Consultation

Biofertilisation of tea plantations. Sri Lanka (ref. n° 11034, 4/9/96) and China, (ref. PCT/FR 97/01363, 22/07/997)

### 2002 - Guayana Shield Conservation Priority Setting Workshop” Paramaribo Suriname. Conservation International, UNDP and the GSI/NC-IUCN. Corodination of the “Invertebrate communities” working group.

2002-2004. United Nations Compensation Commission. Expert for evaluation of Ecological damages of Gulf War. Travels in Kuwait, Iran, Jordan and Saudi Arabia. Ten reports and 6 presentations at UNCC at Geneva.

September 2005. Conservation International. Restauration of the Didy forest (Madagascar). Design of a field research and action plan.

2013. Colombian Ministery of Mines: Ecological classification of Colombian mines to organize their environmental management.

2014. Centro Internacional de Agricultura Tropical. Project “sustainable landscapes of Amazonia”.

Invited Conferences and International seminars

Participations in the Millennium Ecosystem Assessment (Coordinating Lead Author) and IAASTD reports.

65 invited conferences. Three recent ones:

2015. Reconstruir paisajes eco eficientes en areas degradadas de la Amazonia . SIACRE, Buenos Aires.

2014 : Inefficient landscapes of Amazonia. SIACRE, Buenos Aires, march 2015.

2014: La Biodiversidad del suelo un elemento esencial para su manejo (Soil Biodiversity a key resource for its management. Latino American congress of Soil Science. Nov. 2014. Cuzco, Peru.

2013: *Los invertebrados del suelo actores claves de los sistemas agrícolas del futuro*. CONEBIOS III, Rio Cuarto, Cordoba, Argentine, April 2013

2012: *Ecoefficient Landscapes to Prevent Degradation of Agroecosystems in Deforested Amazonia*. Tropentag, Goëttingen, Germany, Octob. 2012

2012: *Restoring ecosystem services in degraded tropical soils with
The FBO Technology*. Ecosummit, Columbus, Ohio, August 2012

2011 : *The need for eco-efficient landscapes in Amazonia*. *Resilience conference*. Phoenix, USA, march 2011

2011 : *Eco-efficient landscapes*. Workshop of the International Resource Panel UNEP-DTIE. Assessing global land use and soil management for sustainable resource policies 28-29 March 2011, Paris,

2010 : *Soil ecosystem services in Amazonian pioneer fronts: Searching for socio economic, landscape and biodiversity determinants*. World Congress of soil Science. Brisbane, Australia, august 2009.

Editorial Boards

Applied Soil Ecology , European Journal of Soil Biology, Acta Zoologica Mexicana , Ecotropica , Animal Biodiversity & Conservation,

Associate Editor: Soil Research, Acta Agronomica (Colombia), Acta Oecologica.

Awards and recognitions

1979. CNRS bronze Medal for PhD thesis.

1999. Member of the French Academy of Science (Membre Correspondant, section de Biologie)

2000. Member of the European Academy of Science

2001. Consultative Group on International Agricultural Research (CGIAR) Excellence in Science Award in the Outstanding Partnership Category. “Sustainable Land Management for Acid Soils Savannaswith CIAT’steam of Richard J. Thomas (CIAT project PE-2)

2005. Zayed International Prize for the Environment (as one of the redactors of the Millennium Ecosystem Assessment UN report°.

报告人Elena Velásquez详细信息：

**CURRICULUM VITAE**

Elena Velásquez - Faculty of Agronomy-

Department of Agricultural Sciences- National University of Colombia

*Carrera 32 Chapinero, vía Candelaria, Palmira Cololmbia*

*E-mail: evelasquezi@unal.edu.co*

**1. Graduations**

* 1. Postdoctoral: Institut de Recherche pour le Développement IRD, Francia.
	2. Ph.D., Agronomy, National University of Colombia

Thesis: Bioindicators of soil quality based on macrofauna populations and their relationship to functional characteristics of the soil.

1990-1995 B.S., Biology, Valley University.

**2. Professional history, services and academic distinctions**

2007-Present: National University of Colombia. *Associate Professor*

*2011-2012: Coordinator PhD and Master Agricultural Sciences Soil and Water Management*

*2010-2011: Coordinator of the PhD in Agroecology, Faculty of Agricultural Sciences.*

*2008-2009: Director of the School of Agricultural Engineering, Faculty of Agricultural Sciences*

*2007-2008: Editor at the magazine: "Colombian Agronomy" of the Faculty of Agronomy of the*

 *National University of Colombia in Bogotá.*

*2003-2006: Scholarship- Institut de Recherche pour le Développement IRD, Francia.*

1994-2004: International Center for Tropical Agriculture CIAT. *Research Associate*

Invited researcher at*:*

* *Pyrenean Institute of Ecology (IPE-CSIC) Spain.*
* *Federal University of Parana (UFPR) and Embrapa Forests, Curitiba Brazil.*
* *Research and Development Institute of France (IRD.*
* *3 Internships developed in: Paraense Emilio Goeldi Museum of Para, Brazil.*
* *3 Internships within the ECOS-Nord France Project. Bondy made in France.*

**3. List of 10 most relevant results of research**

***- Articles***

3.1. Cunha, L.; Brown, G.; Stanton, D.; Da Silva, E.; Hansel, F.; Jorge, G.; McKey, D.; Vidal-Torrado, P.; Macedo, R.; Velasquez, E.; James, S.; Lavelle, P.; Kille, P.; and the Terra Preta de Indio Network. Soil Animals and Pedogenesis: The Role of Earthworms in Anthropogenic Soils. Soil Science, v 181, p. 110-125, 2016.

3.2. Lavelle, P.;Spain, A.; Blouin, M.; Brown, G.; Decaëns, T.; Grimaldi, M.; Jiménez, J.; McKey, D.; Mathieu, J.; Velasquez, E.; ZangerlE, A. Ecosystem Engineers in a Self-organized Soil: A Review of Concepts and Future Research Questions. Soil Science, v 181, p. 91–109, 2016.

3.3. Lavelle, P.; Dolédec, S.; Sartre, X.; Decaëns, T.; Gond, V.; Grimaldi, M.; Oszwald, J.; Hubert, B.; Ramirez, B.; Veiga, I.; Souza, S.; Santos de Assis, W., Michelotti, F.; Martins, M.; Feijoo, A.; Bommel, P.; Castañeda, E.; Chacon, P.; Desjardins, T.; Dubs, F.; Gordillo, E.; Guevara, E.; Fonte, S.; Hurtado, M.; Lena, P.; Lima, T.; Marichal, R.; Mitja, D.; Miranda, I.; Otero, T.; Praxedes, C.; Poccard, R.; Robert, P.; Rodriguez, G.; Sanabria, C.; Tselouiko, S.; Velasquez, A.; Velasquez, E.; Velasquez, J. Unsustainable landscapes of deforested Amazonia: An analysis of the relationships among landscapes and the social, economic and environmental profiles of farms at different ages following deforestation. Global Environmental Change, v 40, p 137–155, 2016.

3.4. GRIMALDI, M.; OSZWALD, J.; DOLEDEC, S.; HURTADO, M.; MIRANDA, I.; ARNAUD de SARTRE, X.; SANTOS DE ASIS, W.; CASTAÑEDA, E.; DESJARDINS, T.; DUBS, F.; GUEVARA, E.; GOND, V.; SANTANA LIMA, T.; MARICHAL, R.; MICHELOTTI, F.; MITJA, D.; CORNEJO, N.; DELGADO OLIVEIRA, M.; RAMIREZ, B.; RODRIGUEZ, G.; SARRAZIN, M.; LOPEZ DA SILVA, M.; SILVA COSTA, L.; SOUZA, S.; VEIGA, I.; VELÁSQUEZ, E.; LAVELLE, P. Ecosystem services of regulation and support in Amazonian. Landscape Ecol, v 29, p. 311–328, 2014.

3.5. LAVELLE, P.; RODRIGUEZ, N.; ARGUELLO, O.; BERNAL, J.; BOTERO, C.; CHAPARRO, P.; GOMEZ, Y.; GUTIERREZ, A.; HURTADO, M.; LOAIZA, S.; PULLIDO, S.; RODRIGUEZ, E.; SANABRIA, C.; VELASQUEZ, E.; FONTE, S. Soil ecosystem services and land use in the rapidly changing Orinoco River Basin of Colombia. Agriculture, Ecosystems and Environment, v. 185, p. 106–117, 2014.

3.6. CASTELLANOS, D; GIGON, A; PUGA-FREITAS, R; LAVELLE, P; VELASQUEZ, E; BLOUIN, M. Combined effects of earthworms and IAA-producing rhizobacteria on plant growth and development. Applied Soil Ecology,v 80, p.100–107, 2014

3.7. MARICHAL, R; GRIMALDI, M; FEIJOO, A; OSZWALD, J; PRAXEDES, C; RUIZ, D; HURTADO, M; DESJARDINS, T; LOPES DA SILVA, M; DA SILVA, L; SOUZA, I; DELGADO, M; BROWN, G; TSELOUIKOA, S; MARTINS, M; DECAENS, T; VELASQUEZ, E; LAVELLE, P. Soil macroinvertebrate communities and ecosystem services in deforested landscapes of Amazonia. Applied Soil Ecology, v 83, p. 177-185, 2014.

3.8. HUERTA, E.; BRUNET, D.; VELASQUEZ, E.; LAVELLE, P. Identifying earthworm's organic matter signatures by near infrared spectroscopy in different land-use systems in Tabasco, Mexico. Applied Soil Ecology, v 69, p. 49-55, 2013.

3.9. VELASQUEZ, E.; FONTE, S.; BAROT, S.; LAVELLE, P.; DESJARDINS, T. ; GRIMALDI, M. Soil macrofauna-mediated impacts of plant species composition on soil functioning in Amazonian pastures. Applied Soil Ecology, v. 56, p. 43-50, 2012.

3.10. FONTE, S.; QUINTERO, C.; VELASQUEZ, E.; LAVELLE, P. Interactive effects of plants and earthworms on the physical stabilization of soil organic matter in aggregates. Plant and Soil, v. 359, p. 205-214, 2012.

3.11. MARICHAL, R.; GRIMALDI, M.; MATHIEU, J.; BROWN, G. G.; DESJARDINS, T.; LOPES da SILVA, M.; PRAXEDES, C.; MARTINS, M.; VELASQUEZ, E.; LAVELLE, P. Is invasion of deforested Amazonia by the earthworm Pontoscolex corethrurus driven by soil texture and chemical properties? Pedobiologia, v. 55, p. 233-240, 2012.

3.12. LO-MAN-HUNG, N. F. ; MARICHAL, R. ; CANDIANI, D. F. ; CARVALHO, L. S. ; INDICATTI, R. P. ; BONALDO, A. B. ; COBO, D. H. R. ; FEIJOO, A.; TSELOUIKO, S. ; PRAXERES, C.; BROWN, G. G.; VELASQUEZ, E.; DECAENS, T. ; OSZWALD, J. ; MARTINS, M. ; ; LAVELLE, P. . Impact of different land management on soil spiders (Arachnida: Araneae) in two Amazonian areas of Brazil and Colombia. The Journal of Arachnology, v. 39, p. 296-302, 2011.

3.13. MARICHAL, R.; FEIJOO, A.; PRAXEDES, C.; RUIZ, D.; CARVAJAL, A. F.; OSZWALD, J.; HURTADO, M.; BROWN, G. G.; GRIMALDI, M.; DESJARDINS, T. ; SARRAZIN, M.; DECAENS, T.¸ VELASQUEZ, E.; LAVELLE, P. Invasion of Pontoscolex corethrurus (Glossoscolecidae, Oligochaeta) in landscapes of the Amazonian deforestation arc. Applied Soil Ecology, v. 46, p. 443-449, 2010.

3.14. DE LIMA, S.; DE AQUINO, A.; LEITE, LF.; LAVELLE, P.; VELASQUEZ, E. Relação entre macrofauna edáfica e atributos químicos do solo em diferentes agroecossistemas. Pesquisa Agropecuária Brasileira (Online), v. 45, p. 322-331, 2010.

3.15. ZHANG, C.; LANGLEST, R.; VELASQUEZ, E.; PANDO, A.; BRUNET, D.; DAI, J.; LAVELLE, P. Cast production and NIR spectral signatures of Aporrectodea caliginosa fed soil with different amounts of half-decomposed Populus nigra litter. Biology and Fertility of Soils, v. 45, p. 839-844, 2009.

3.16. LAOSSI, K.; BAROT, S.; CARVALHO, D.; DESJARDINS, T.; LAVELLE, P.; MARTINS, M.; MITJA, D.; RENDEIRO, DC.; ROUSSEAU, G.; SARRAZIN, M.; VELASQUEZ, E.; GRIMALDI, M. Effects of plant diversity on plant biomass production and soil macrofauna in Amazonian pastures. Pedobiologia, v. 51, p. 397-407, 2008.

3.17.MITJA, D.; SOUZA MIRANDA, I., VELASQUEZ, E. ; LAVELLE, P. Plant species richness and floristic composition change along a rice-pasture sequence in subsistence farms of Brazilian Amazon, influence on the fallows biodiversity (Benfica, State of Pará). Agriculture, Ecosystems & Environment, v. 124, p. 72-84, 2008.

3.18. VELASQUEZ, E.; LAVELLE, P.; ANDRADE, M. GISQ, a multifunctional indicator of soil quality. Soil Biology & Biochemistry, v. 39, p. 3066-3088, 2007.

3.19. VELASQUEZ, E. ; LAVELLE, P.; GRIMALDI, M.; MARTINS, M.; BRUNET, D; PELOSI, C.; RENDEIRO, AC.; BARRIOS, E. This ped is my ped: Visual separation and near infrared spectra allow determination of the origins of soil macroaggregates. Pedobiologia, v. 51, p. 75-87, 2007.

3.20. VELASQUEZ, E. ; LAVELLE, P. ; BARRIOS, E.; JOFFRE, R.; REVERSAT, F. Evaluating soil quality in tropical agroecosystems of Colombia using NIRS. Soil Biology & Biochemistry , v. 37, p. 889-898, 2005.

3.21. CALATAYUD, PA.; BARÓN, CH.; VELASQUEZ, E.; ARROYAVE, JA.; LAMAZE, T. Wild manihot species do not possess C4 photosynthesis. Ann Bot 89, v.1, p.125-127. 2002.

**4. List of ongoing financial support (Five projects already finished)**

2015 – actual – Development of innovative technologies for integrated pest and diseases limiting banana and plantain in the Valle del Cauca management. General Royalties System SGR. Colombia.

2015 – actual - A Worm’s TrailImplementing a collaborative network for the study of Historical and Recent Land Use and Soil Management in Neotropical Rainforests. Brasil.

**5. List of supervised students**

***5.1. Master supervision***

*- Lilia Andrea SUAREZ entitled “Influence of Organic Bio Fertilization (FBO) on soil quality in Valle del Cauca”. (Thesis in development).*

*- Claudia Fernanda MILLAN entitled “SOCIOECONOMIC AND BIOPHYSICAL CHARACTERIZATION OF BANANA AND PLANT PRODUCTION FARMS IN THE VALLEY OF CAUCA”. (Thesis in development).*

*- Clara Ines MELO CERÓN entitled "EFFECT OF ORGANIC FERTILIZER ON FRUIT PRODUCTION AND DECREASE anthracnose (Colletotrichum spp) in Citrus tanguelo J.W. Ingram & H.E. Moore y Citrus aurantifolia (Christm) Swingle”*

*- Yamileth CHAGÜEAZA VILLAREAL. Entitled "BIOLOGICAL CONTROL IN NAMATODOS phytoparasitic plantain alternatives."*

*- Cesar Alberto Montealegre entitled "DETERMINATION OF EFFECT OF DIFFERENT LAND USE SYSTEMS PROPERTIES ON REGULATING THE WATER SUPPLY IN THE AMAZON AND GENERATION PIEDEMONTE an indicator water potential.*

*- Paula Andrea CHAPARRO MANRIQUE. Title: EVALUATION OF GAS EMISSIONS IN SOME AGRICULTURAL PRODUCTION SYSTEMS OF FLAT IN Altillanura Colombian Orinoco. (Thesis in development).*

***5.2. PhD supervision***

- *SOLARTE Jose Antonio, titled IMPACT ASSESSMENT PAYMENT FOR ENVIRONMENTAL SERVICES THROUGH AN INDEX OF ECO-EFFICIENCY IN CATTLE FARMS OF OLD RIVER BASIN, Quindío and Valle del Cauca, COLOMBIA.*

*- Angela Maria LONDOÑO MOTTA entitled "ADOPTION POTENTIAL BIOLOGICAL ALTERNATIVES FOR PLANTAIN, Quindío COLOMBIA.*

*- María del Pilar Hurtado Sanchez entitled "EFFECT OF DIFFERENT LAND USE ON THE CARBON DYNAMICS Amazon piedmont." (Thesis in development).*

*- Edgar Alfonso ARAUJO RODRIGUEZ entitled "INDICADRES EFICIANCIA ECO-SYSTEMS PRODUCTION OF FLAT Altillanura Colombian Orinoco." (Thesis in development).*

*- Yamileth Chagueza VILLAREAL entitled "BIOLOGICAL PESTICIDE USE IN PLANTAIN (Alterbio) alternatives." (Thesis in development).*

**6. Other informations**

6.1. Published books - **0**

6.2. Publications in scientific journals - **21**

6.3. Book chapters - **1**

6.4. Finished master thesis - **3**

6.5. Finished PhD thesis - 2

6.6. Supervision of postdocs - **0**

6.7. Citations according ISI (250)

**7. Additional informations**

**7.1. Participation in scientific journals**

2007-2008: Editor at the magazine: "Colombian Agronomy" of the Faculty of Agronomy of the

 National University of Colombia in Bogotá.

**8. Links**

- Researcher ID: <http://www.palmira.unal.edu.co/paginas/facultades/index_facult.html>

Curriculum Lattes:

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 ***Elena VELÁSQUEZ***