

## Justine JACQUEMIN, PhD

Current position (2013 – 2016): Postdoctoral Researcher (FNRS) at the Royal Belgian Institute of Natural Sciences, Operational Directorate Nature, Biodiversity Monitoring & Assessment (BIOMON).

Project title: *Ant trophic functions in mountain rainforests revealed by biochemical analyses*

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Citizenship: Belgian

Date and place of birth: 17/08/1985, Brussels, Belgium

Languages: French (native tongue), English, Dutch, Spanish, Turkish

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### EDUCATION

2008 – 2013: PhD in agronomical sciences and biological engineering, Faculty of Sciences, Université libre de Bruxelles, Belgium.

**PhD thesis:** *Factors determining the spatio-temporal distribution of ants in an Andean tropical forest* (2013)

2003 – 2008: Bio-engineer in Applied Zoology (i.e. Master level), Ecole Interfacultaire des Bioingénieurs, Université libre de Bruxelles, Belgium. High mark.

**Master thesis:** *Capacité invasive d'*Ips typographus* et effet Allee* (2008)

### TRAINING

2015: Participation in the CANOCO Course, a training in multivariate analysis of ecological data using CANOCO software. University of South Bohemia, Ceske Budejovice, Czech Republic

2010: Participation in the Ant Course, a training in ant taxonomy organized by the California Academy of Sciences and the Museum of Comparative Zoology (Harvard University), Danum Valley, Borneo

2009: Participation in a workshop on ant taxonomy at the International Union for the Study of Social Insects - French section, Banyuls-sur-mer, France

2007: Internship on host selection in *Cameraria ohridella* at CABI Europe-Switzerland, Delémont, Switzerland

### ACADEMIC EXPERIENCE

2014: Co-supervision of the training in Eco-Ethology (BIOL-F-500), Master 2 in Biology, ULB. Treignes, 15-17/09/2014

Supervision of a trainee in Biology (Elise Privé, Bac-3, UCL, 7-18/04/2014) and two trainees in Bioengineering (Sophie Moreau and Basile Houters, Master-1, Gembloux, 17/03-11/04/2014)

2012: Co-supervision of the training in Eco-Ethology (BIOL-F-500), Master 2 in Biology, ULB. Treignes, 17-21/09/2012

Co-supervision of a trainee in Biology (Gwenaël Collart, UCL), 2-13/04/2012

2011: Co-supervision of the training in Eco-Ethology (BIOL-F-500), Master 2 in Biology, ULB. Treignes, 19-23/09/2011

### OTHER PROFESSIONAL EXPERIENCE

2014: Participation to Night on M.A.R.S. (October 17, 2014) with Maurice Leponce: "Ant discovery in the land of the unexpected". Halles Saint-Géry, Brussels

2013: 3-weeks research stay at the Department of Biological Sciences of the National University of Singapore to identify ants collected in Singapore

2013: Scientist for the Exhibition Development Service, Royal Belgian Institute of Natural Sciences

Scientific collaborator at the Royal Belgian Institute of Natural Sciences

2012 – present: Scientific referee for *Oikos*, *Soil Biology & Biochemistry*, *Journal of Arid Land*, *Insectes Sociaux*, *Biotropica*, *Journal of Applied Ecology*

### RESEARCH INTERESTS AND SKILLS

Ant ecology; Ant taxonomy; Trophic ecology; Stable isotopes; Insect distribution; Arthropod conservation; Tropical forests.

### FIELD EXPERIENCE

Ecuador (6 months), Borneo, Singapore.

## PEER-REVIEWED PUBLICATIONS

- Jacquemin J., Delsinne T., Maraun M., Leponce M. 2014. Trophic ecology of the armadillo ant *Tatuidris tatusia* assessed by stable isotopes and behavioral observations. *Journal of Insect Science* 14:108
- Jacquemin J., Drouet T., Delsinne T., Roisin Y., Leponce M. 2012. Soil properties only weakly affect subterranean ant distribution at small spatial scales. *Applied Soil Ecology* 62:163-169
- Delsinne T., Sonet G., Nagy Z. T., Wauters N., Jacquemin J., Leponce M. 2012. High species turnover of the ant genus *Solenopsis* (Hymenoptera: Formicidae) along an altitudinal gradient in the Ecuadorian Andes, indicated by a combined DNA sequencing and morphological approach. *Invertebrate Systematics* 26:457-469
- Jacquemin J., Maraun M., Roisin Y., Leponce M. 2012. Differential response of ants to nutrient addition in a tropical Brown Food Web. *Soil Biology & Biochemistry* 46:10-17

## OTHER PUBLICATIONS

- Delsinne T., Schmidl J., Pollet M., Jacquemin J., Roisin Y., Leponce M. 2012. Podocarpus National Park Biodiversity. *TMF Newsletter* n°17, p.29. September 2012
- Jacquemin J., Drouet T., Roisin Y., Leponce M. 2012. Do Soil Properties Affect Subterranean Ant Distribution at a Small Spatial Scale? *TMF Newsletter* n°16, p.18. March 2012
- Jacquemin J., Leponce M. 2011. Using isotopic approach to study trophic relationships between ants and their prey (meeting abstract). *Bulletin de la Société royale belge d'Entomologie* 147(V-VIII):177-178
- Jacquemin J., Maraun M., Roisin Y., Leponce M. 2011. Habitat rather than prey limits predatory ants. *TMF Newsletter* n°12, p.15. May 2011
- Leponce M., Delsinne T., Arias-Penna T., Jacquemin J. 2010. Ant Communities: Structure, Diversity and Distribution. *TMF Newsletter* n°8, p.10. March 2010
- Jacquemin J. 2008. Capacité invasive d'*Ips typographus* (Coleoptera, Curculionidae) et effet Allee. *Bulletin de la Société royale belge d'Entomologie* 144(VII-XII):172-176

## POSTERS & ORAL PRESENTATIONS

- Jacquemin J., Leponce M. 2014. From individual diet determination to food web disentanglement: the use of stable isotopes and fatty acids in the study of ant trophic ecology. Zoology2014, 21st Benelux congress of Zoology. Liège, Belgium, 12-13/12/2014, p. 199 (poster)
- Leponce M., Delabie J.H.C., Klimes P., Delsinne T., Jacquemin J., Dejean A. 2014. Ant mosaics in primary rainforests across four continents. 5th Symposium of the Royal Belgian Entomological Society, "Entomology in Belgium". Royal Belgian Institute of Natural Sciences, Belgium, 28/11/2014, p. 8 (oral by ML)
- Leponce M., Delabie J.H.C., Klimes P., Delsinne T., Jacquemin J., Dejean A. 2014. Ant mosaics in primary rainforests across four continents. Meeting of the IUSI (International Union for the Study of Social Insects). Cairns, Australia, 13-18/07/2014, p. 101 (oral)
- Bourguignon T., Jacquemin J., Gang L., Evans T.A. 2014. Change of social insect assemblages along a gradient of anthropisation in Singapore. 51st annual meeting ATBC 2014. Cairns, Australia, 20-24/07/2014, p. 50 (oral)
- Jacquemin J., Roisin Y., Leponce M. 2014. Spatio-temporal variation of ant distribution among ground layers in an Andean tropical forest. 51st annual meeting ATBC 2014. Cairns, Australia, 20-24/07/2014, p. 100 (oral)
- Jacquemin J., Roisin Y., Leponce M. 2014. Ant differential response to nutrient addition in an Andean forest. Meeting of the IUSI (International Union for the Study of Social Insects). Cairns, Australia, 13-18/07/2014, p. 251 (poster)
- Evans T.A., Jacquemin J., Gang L., Bourguignon T. 2014. Variation of social insect assemblages in Singapore primary and secondary forests. 10th Pacific-Rim termite Research Group Conference (TRG 10). Kuala Lumpur, Malaysia, 26-28/02/2014
- Jacquemin J., Drouet T., Delsinne T., Roisin Y., Leponce M. 2013. An insight into subterranean ant ecology. Seminar given at the Department of Biological Sciences, National University of Singapore, 31/10/2013

Jacquemin J., Roisin Y., Leponce M. 2013. Nutrient addition changes taxonomic composition but not trophic functions in a tropical leaf-litter ant assemblage. 43rd annual conference of the Ecological Society of Germany, Austria and Switzerland. Potsdam, Germany, 9-13/09/2013, p. 385 (oral)

Jacquemin J., Roisin Y., Leponce M. 2013. Spatio-temporal variation of ant abundance among ground layers in a tropical forest. Congrès de la section française de l'IUSSI. Villetaneuse, France, 28-30/08/2013, p. 23 (oral)

Jacquemin J., Roisin Y., Leponce M. 2013. Spatio-temporal variation of ant distribution among ground layers in a tropical forest. 9th Biennial General Meeting of the Bolivarian Section of the International Union for the Study of Social Insects. Cali, Colombia, 21-24/08/2013, p. 31 (oral by YR)

Jacquemin J., Roisin Y., Leponce M. 2013. Variation spatiale et saisonnière de la distribution des fourmis dans le sol d'une forêt tropicale. ULB, Belgium, Bioengineering Research Day, 16/04/2013, p. 13 (oral)

Jacquemin J., Delsinne T., Roisin Y., Leponce M. 2012. Stable isotope analysis: from individual diet determination to complex food web disentanglement. 19th Benelux Congress of Zoology. Integrative biology: from ecology to molecules. ULB, Belgium, 19-20/10/2012, p. 21 (oral)

Jacquemin J., Drouet T., Roisin Y., Leponce M. 2012. Soil properties weakly affect subterranean ant distribution at small spatial scale. 5th Congress of the European Sections of the IUSSI, Montecatini Terme, Tuscany, Italy, 26-30/08/2012, p. 111 (oral)

Jacquemin J., Drouet T., Roisin Y., Leponce M. 2012. Weak influence of soil properties on subterranean ant distribution. Seminar ULB, Belgium, 10/05/2012 (oral)

Delsinne T., Arias-Penna T., Jacquemin J., Laurent Y., Bachy I., Leponce M. 2012. Subfamilies and genera of ants (Hymenoptera: Formicidae) from the Podocarpus National Park, Ecuador. 5ème symposium belge sur les fourmis, Waremme, Belgium, 21/04/2012 (poster)

Jacquemin J., Drouet T., Roisin Y., Leponce M. 2012. Soil properties affect the small-scale distribution of subterranean ants in a montane tropical forest. Conference of the Society for Tropical Ecology, Erlangen, Germany, 22-25/02/2012, p. 127 (oral)

Sonet G., Nagy Z.T., Jacquemin J., Wauters N., Delsinne T., Leponce M. 2011. DNA barcoding of fire and thief ants (genus *Solenopsis*) of the Ecuadorian Andes as a tool for biodiversity research. Fourth international Barcode of Life conference, Adelaide, Australia, 28/11-3/12/2011 (oral and poster)

Delsinne T., Arias-Penna T., Jacquemin J., Leponce M. 2011. Uso de las hormigas para monitorear las perturbaciones de la selva tropical de los Andes ecuatorianos causadas por los cambios atmosféricos. Simposio anual de la Unidad de Investigación FOR816 "Biodiversidad y manejo sostenible de un ecosistema de montaña megadiverso en el sur del Ecuador", UTPL-Loja, Ecuador, 06-07/10/2011 (oral)

Delsinne T., Arias-Penna T., Jacquemin J., Laurent Y., Bachy I., Leponce M. 2011. Subfamilias y géneros de hormigas (Hymenoptera: Formicidae) presentes en el Parque Nacional Podocarpus. Simposio anual de la Unidad de Investigación FOR816 "Biodiversidad y manejo sostenible de un ecosistema de montaña megadiverso en el sur del Ecuador", UTPL-Loja, Ecuador, 06-07/10/2011 (poster)

Jacquemin J., Maraun M., Roisin Y., Leponce M. 2011. Habitat rather than prey availability limits predatory ants in a tropical mountain brown food web. 8th Biennial General Meeting of the Bolivarian Section of the International Union for the Study of Social Insects, Trinidad, 1-4/08/2011, p. 16 (oral by YR)

Jacquemin J., Maraun M., Roisin Y., Leponce M. 2011. Effects of nutrient supply on leaf litter arthropod community in an Andean tropical forest. Annual congress of the ATBC (Association for Tropical Biology and Conservation), ATBC & SCB Africa Meeting 2011, Arusha, Tanzania, 12-16/06/2011, p. 46 (oral)

Jacquemin J., Maraun M., Roisin Y., Leponce M. 2011. Differential response of leaf litter ants to nutrient addition in a tropical Brown Food Web. Congrès de la section française de l'IUSSI, Banyuls-sur-mer, France, 13-15/04/2011, p. 18 (oral)

Jacquemin J., Leponce M. 2011. Using isotopic approach to study trophic relationships between ants and their prey. 4ème Symposium belge sur les fourmis, Royal Belgian Institute of Natural Sciences, Belgium, 03/04/2011 (oral)

Jacquemin J. 2011. Des fourmis dans les Andes : une diversité de méthodes pour comprendre la diversité. Bioengineering Research Day, ULB, 28/03/2011 (oral)

Sonet G., Nagy Z.T., Jacquemin J., Leponce M. 2011. Validation of the DNA barcoding approach to survey ant communities in the Ecuadorian Andes. BioSystematics Berlin 2011, Berlin, Germany, 21-27/02/2011, p. 343 (poster)

Jacquemin J., Maraun M., Roisin Y., Leponce M. 2010. Leaf litter ants trophic levels revealed by stable isotopes in an Andean Brown Food Web. 3rd Symposium of the Royal Belgian Entomological Society, "Entomology in Belgium", Royal Belgian Institute of Natural Sciences, Belgium, 3/12/2010, p. 27 (oral)

Jacquemin J., Maraun M., Roisin Y., Leponce M. 2010. Nutrient limitation in an Andean brown food web: effects of C, N, P additions on leaf-litter ants and mesofauna. Meeting of the IUSSI (International Union for the Study of Social Insects), Copenhagen, Denmark, 8-14/08/2010, p. 64 (poster)

Leponce M., Wauters N., Jacquemin J., Delsinne T., Roisin Y. 2009. High elevation ants from the Ecuadorian Andes. Annual meeting of the GTÖ and the Association for Tropical Biology and Conservation, "Impacts of Global Change on Tropical Ecosystems", Marburg, Germany, 27-30/07/2009, p. 486 (poster)

#### **GRANTS AWARDED & DISTINCTIONS**

*PhD financial supports:*

Fonds pour la formation à la Recherche dans l'Industrie et dans l'Agriculture (FRIA, 2008-2012)

Fonds National de la Recherche Scientifique - *Belgian National Fund for Research* (FNRS)

Fonds Agathon de Potter - Classe des Sciences de l'Académie Royale de Belgique (2009)

Fonds Léon et Henri Fredericq - Classe des Sciences de l'Académie Royale de Belgique (2010)

Bourse de la section française de l'Union Internationale pour l'Etude des Insectes Sociaux (2012)

Fonds David & Alice Van Buuren - Université libre de Bruxelles (2013)

Shortlisted for the Biology Award Jacques Kets, 2008, Belgium

Prize for the best oral communication, BioEngineer Research Day, 2011, Belgium

Member of the Alumni College, Académie Royale de Belgique