



List of scientific publications 2015

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1. Papers in peer review journals

Impact of agricultural practices on soil fertility and soil macro fauna diversity in rubber plantation in Northeast Thailand

1. Boithias L., Do F.C., Isarangkool Na Ayutthaya S., Junjittakarn J., Siltecho S. and Hammecker C., (2012). *Transpiration, growth and latex production of a Hevea brasiliensis stand facing drought: the use of WaNuLCAS model as an exploratory tool*. Experimental Agriculture 48: 49-63.
2. Clermont-Dauphin C., Suvannang N., Hammecker C., Cheylan V., Pongwichian P. and Do F.C., (2013). *Unexpected absence of control of rubber tree growth by soil water shortage in dry subhumid climate*. Agronomy and Sustainable Development. 33(3): 531-538 DOI: 10.1007/s13593-012-0129-2.
3. Huon S., de Rouw A., Bonte P., Robain H., Valentin C., Lefevre, I., Girardin, C., Le Troquer, Y., Podwojewski, P., Sengtaheuanghoung, O., (2013). Long-term soil carbon loss and accumulation in a catchment following the conversion of forest to arable land in northern Laos. Agriculture Ecosystems & Environment, 169, 43-57
4. Junjittakarn J., Limpinuntana V., Pannengetch K., Isarangkool Na Ayutthaya S, Rocheteau A., Cochard H. and Do F.C., (2012). *Short term effects of latex tapping on micro-changes of trunk girth in Hevea brasiliensis*. Australian Journal of Crop Science 6(1): 65-72.
5. Satakhun D., Gay F., Chairungsee A., Kasemsap P., Chantuma P., Thanisawanyangkura S., Thaler P. and Epron D., (2013). *Soil CO2 efflux and soil carbon balance of a tropical rubber plantation*. Ecological Research, DOI 10.1007/s11284-013-1079-0
6. Doan Thu, T., Bouvier, C., Bettarel, Y., Bouvier, T., Henry-des-Tureaux, T., Janeau, J.L., Lamballe, P., Rumpel, C., Nguyen Van, B., Jouquet, P., (2014). *Influence of vermicompost and biochar amendments on bacteria and virus in soil and water*. Applied Soil Ecology, 73: 78-86.
7. Janeau J-L., Gillard L-C., Grellier S., Jouquet P., Le Thi Phuong Q., Luu Thi Nguyet M., Ngo Quoc A., Orange D., Pham Dinh R., Tran Duc T., Tran Sy H., Trinh Anh D., Valentin C. and Rochelle-Newall E., (2014). *Export of high loads of soil DOC from small upland, farmed catchments in tropical watersheds*. Agr. Wat. Manag., 146 : 314-323

8. Jouquet P., Doan T.T., (2014). *Vermicompost reduces the invasiveness of the earthworm species *Dichogaster bolau* compared to the use of compost in a degraded tropical soil in Northern Vietnam*. European Journal of Soil Biology 64: 46-52.
9. Ngo T.P., Rumpel, C., Doan Thu, T., Henry-des-Tureaux, T., Dinh-Kim, D., Jouquet P., (2014). *Use of organic substrates for increasing soil organic matter quality and carbon sequestration of tropical degraded soil: a 3 year mesocosms experiment*. Carbon Management 5(2): 155-168.
10. Pommier, T., Merroune, A., Bettarel, Y., Got, P., Janeau, J.-L., Jouquet, P., Doan T.T., Tran Duc T., Rochelle-Newall, E., (2014). *Off-site impacts of agricultural composting: role of terrestrially derived organic matter in structuring aquatic microbial communities and their niche breadth*. FEMS Microbiology Ecology 90 (3): 622-632.
11. Sopharat J. , Gay F., Thaler P., Sdoodee S., Isarangkool Na Ayutthaya S., Tanavud C., Hammecker C. and Do F. C., (2014), September 29. *A simple framework to analyze water constraints on seasonal transpiration in rubber tree (*Hevea brasiliensis*) plantations*. Frontiers in Plant Science, section Crop Science and Horticulture (submitted)
12. Tran T.N.T., Truong L.S.H., Orange D. and Picquart C., (2014). *Assessment of the environmental risk of glyphosate herbicide and its metabolite AMPA in the canals, surface water at Saigon - Dong Nai and Mekong Delta*. In : *Hydrology in a Changing World: Environmental and Human Dimensions*, IAHS Publ. 363, under press
13. Siltecho, S., Hammecker, C., Sriboonlue, V., Clermont-Dauphin, C., Trelo-ges, V., Antonino, A. C. D., and Angulo-Jaramillo, R., (2015). *Use of field and laboratory methods for estimating unsaturated hydraulic properties under different land uses*. Hydrol. Earth Syst. Sci., 19, 1193-1207, doi:10.5194/hess-19-1193-2015

2. Papers in non peer review journals

1. Kunjet S., Thaler P., Gay F., Chuntuma P., Sangkhasila S. and Kasemsap P., (2013). *Effects of Drought and Tapping for Latex Production on Water Relations of *Hevea brasiliensis* Trees*. Kasetsart Journal (Natural Sciences), 47 : 1 – 10
2. Kunjet S., Thaler P., Gay F., Kositsup B., Chuntuma P., Sangkhasila S. and Kasemsap P., (2013). *Diurnal dynamics of stand transpiration and stomatal conductance in Rubber (*Hevea brasiliensis* Muell. Arg.)*. Kasetsart J. (Nat. Sci.) 47: 647 – 662
3. Sopharat J., Sdoodee S., Tanavud C., Gay F. and Thaler P., (2013). *A simple water balance model of rubber tree plantations under different evaporative demand regimes*. Advanced Materials Research Vol. 844, pp 20-23.
4. Clermont-Dauphin C., Suwannang N., Hammecker C., Delarivière J., Maeght J.L. & Robain H., (2014) *Intensification écologique des plantations d'hévéa en zones marginales*. in Les dossiers d'agropolis International n° 19 - Agricultures familiales, Ed. Hubert B. Agropolis Pub., p. 32
5. Isarangkool Na Ayutthaya S. and Do F.C., (2014). *Rubber trees affected by necrotic Tapping Panel Dryness exhibit poor transpiration regulation under atmospheric drought*. Advanced Material Research 844: 3-6.
6. Sangchanda, N., Isarangkool Na Ayutthaya, S., Meetha S. and Songsri, P., (2014). *The influence of rainfall on growth of rubber trees in marginal area of Northeast Thailand*. Advanced Materials Research, 844: 7-10.

3. Congress / Seminar

1. Brauman A., Lafaye M., Perawatchara M., Gay F., Chompunut C., Robain H., Choosai C., Junrungreang S., Chantuma P., Trap J. and Nopmanee S., (2013) *Impact of rubber plantation on soil macrofauna biodiversity*. 1st Asia Pacific Rubber Conference, 4-5 September 2013, Surat Thani, Thailand
2. Gay F., Saengtharatip S., Lafaye de Micheaux M., Chantuma P., Chayawat C., Chotipan R. , Suvanang N., Brauman A., Brunet D., Robain H., Sebag D. and Thaler P., (2013). *Impact of Rubber Plantations on Soil*

- Organic Carbon: A Case Study in Chachoengsao province (Thailand)*. 1st Asia Pacific Rubber Conference, 5-6 September 2013, Surat Thani, Thailand.
3. Isarangkool Na Ayutthaya S. and Do F.C., (2013). *Rubber trees affected by necrotic Tapping Panel Dryness exhibit poor transpiration regulation under atmospheric drought*. 1st Asia Pacific Rubber Conference, 5-6th September, Surat Thani, Thailand. (Oral presentation, OA-04, p 49).
 4. Robain H., Lafaye De Micheaux M., Suvannang N., Brunet D., Gay F., Saengtha S., Ninchawee C., Suaysom W., Le Troquer Y., Chotipan., Brauman A. and Chantuma P., (2013). *Soil variability in a chronosequence of rubber tree plantations in Chachoengsao province*, Thailand. 1st Asia Pacific Rubber Conference, 5-6 September 2013, Surat Thani, Thailand.
 5. Sangchanda, N., Isarangkool Na Ayutthaya, S., Meetha S. and Songsri, P. (2013). *The influence of rainfall on growth of rubber trees in marginal area of Northeast Thailand*. 1st Asia Pacific Rubber Conference, 5-6th September, Surat Thani, Thailand. (Poster presentation, P-01, p 67)
 6. Isarangkool Na Ayutthaya S., Do F.C., (2012). *Daily natural rubber production does not reflect mild tree water stress*. In the 2nd Symposium on Horticulture in Europe (SHE), under the aegis of the International Society of Horticultural Science (ISHS) and Agro-Campus Ouest, Angers, 1-5 July, France (Poster).
 7. Gay F., Bessou C., Bottier C., Brauman A., Chambon B., Chantuma P., Kasemsap P., Lacote R., Liengprayoon S., Nopmanee S., Robain H. and Thaler P., (2013). *Assessing Ecosystem Services in Rubber Plantations: From Flux Measurements to Life-Cycle Assessment Approach*. 3rd Rubber Plant Summit, 13-15 October 2013, Yangon, Myanmar.
 8. Brauman, A., Kyulavski V., Promnok T., Till M., Peerawat M., Alonso P., Villenave C., Suvannang N., Trap J. and Nimkingrat P.,(2014). *What are the best suitable indicators of the agricultural practices in Rubber plantation?* HRPP Conference on agronomy. Kasetsard University 8-9 October 2014
 9. Perawatchara M., Chevalier T., Abadie J., Laure P.A., Trap J., Lafaye De Micheaux M., Gay F., Robain H., Junrungreang S., Nopmanee S. and Brauman A.,(2014). *Impact of land use changes from casava to rubber on soil biological diversity*. HRPP Conference on agronomy. Kasetsard University 8-9 October 2014
 10. Brauman A., Perawatchara M, Lafaye De Micheaux M., Nopmanee S., Choosai C., Robain H., Sebag D., Chevallier T., Abadie J., Trap J. and Gay F., (2014) *Does afforestation of arable land with rubber tree improve soil functioning? a case study in a chronosequence of rubber plantation in Thailand*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand
 11. Isarangkool Na Ayutthaya S., Meetha S., Songsri P., Rattanawong R. and Kasemsap P. (2014). *Position of probe setting on sap flow value and transpiration of young new clone rubber tree*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand
 12. Kyulavski V., Promnok T., Till M., Peerawat M., Alonso P., Villenave C., Suvannang N., Trap J., Nimkingrat P. and Brauman A., (2014). *Impact of agricultural practices on soil biological functioning in Rubber plantations*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand.
 13. Perawatchara M., Chevalier Tiphaine., Abadie Josiane., Laure P.A., Trap J., Lafaye De Micheaux M., Gay F., Robain H., Junrungreang S., Nopmanee S. and Brauman A., (2014). *Impact of rubber plantations on the soil microbial community: case study of a rubber trees chronosequence in Chachoengsao province, Thailand* International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand.
 14. Promkhambut A., Till M., Brauman A., Robain H., Chambon B. and Koonklang N., (2014). *Agriculture practices of rubber plantation in Northeast Thailand and its challenge for sustainability*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand.
 15. Promnok T., Peerawat M., Villenave C., Suvannang N., Kyulavski V., Brauman A. and Nimkingrat P., (2014). *The use nematodes as bio-indicator of different agricultural practices impact on soil functioning in Rubber plantation*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand.

16. Sangchanda N., Isarangkool Na Ayutthaya S., Meetha S., Songsri P. and Pannangpetch K. (2014). *The study on growth and yield of rubber in new planting area of Thailand*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand
17. Prakobmee A., Isarangkool Na Ayutthaya S., and Techawongstien S. (2014). *Evaluation of leaf age and tree age on nutrients in leaves of rubber tree clone RRIM600*. International Conference on Rubber 28-30 August 2014. Thaksin University, Phatthalung campus, Thailand
18. A. Promkhambut, M. Till, A. Brauman, H. Robain, B. Chambon, N. Koonklang, N. Suwannang, S. Siltacho and C. Choosai, (2015). *Impact of agricultural practices on soil fertility and soil macro fauna diversity in rubber plantation in Northeast Thailand*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
19. Brauman A., Peerawat M., Kyulaski V., Promnok T., Alonso P., Villenave C., Trap J., Nimkingrat P., Gay F. and Savannang N., (2015). *Do tree plantations improve soil health? The case of Rubber tree plantations in Thailand*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
20. Brauman A., Kyulavski V., Promnok T., Till M., Peerawat M., Alonso P., Villenave C., Trap J., Nimkingrat P., Suvannang N., (2015) *Functional vs taxa affiliation: what is the best indicator of agricultural practices? The case of Rubber plantation in N.E. Thailand*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
21. Chotte JL., (2015) *Promoting soil biological processes for food security and resilience of soil functions: What we know and what needs to be known*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
22. Gay F., Angthong S., Bessou C., Bottier C., , Chambon B., Chantuma P., Gohet E., Lacote R., Liengprayoon S., Poonpipope K., Thaler P., Thanisawanyangkura S., Vaysse L., Winsunthorn S., Sainte-Beuve J., Brauman A., (2015). *How tree plantations can contribute to the Climate-Smart Agriculture objectives? The case of rubber tree plantations and the natural rubber commodity chain*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
23. Heepgoen P., Gay F., Sajjaphan K., Trap J., Thaler P., Suvanang N., Alonso P., Decaens T., Brauman A., (2015). *Who eat rubber litters? Dynamics and drivers of litter decomposition in rubber plantations*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
24. Panklang P., Chaillié R., Peerawat M., Heepgoen P., Promnok T., Waijaroen S., Nimkingrat P., Sajaphan K., Suvannang N., Junrungreang S., Khongin C., Thaler P. and Brauman A., (2015). *Rubber, rubber and rubber !! Long Term Impact of Rubber Plantation on Soil Biodiversity and Related Soil Functions*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
25. Peerawat M., Chevalier T., Abadie J., Pablo A., Trap J., Gay F., Robain H., Junrungreang S., Nopmanee S., g Brauman A., (2015). *Impact of land use change and rubber plantation age on soil microbial community activity and diversity*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
26. Promnok T., Peerawat M., Villenave C., Suvannang N., Kyulavski V., Brauman A. and Nimkingrat P., (2015). *Do agricultural practices affect nematode communities and soil quality in rubber plantations?* ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
27. Robain H., Suvannang N., Wiriyakitnateekul W., Lesueur D., Gay F., Brauman A., Hermann L., Chotiphan R., Koonklang N. and Le Troquer Y., (2015) *A novel approach of soil variability within agronomical trials using Electrical Resistivity Tomography*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand
28. Robain H., Hammecker C., Clermont-Dauphin C., Suvannang N. and Siltacho S., (2015). *Improving rubber tree cultivation in North East Thailand: Effects of inter-rank cover crops*. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand

29. Thu Doan T., Henry-des-Tureaux T., Rumpel C., Janeau JL., Jouquet P., (2015). *The amendment of organic matter (compost, vermicompost and biochar) increases the sustainability of agriculture in the Sloping Lands of Northern Vietnam. International Soil Conference in Thai land. Poster presentation. ISC - Sustainable Uses of Soil in Harmony with Food Security 17-20 August 2015, Cha Am, Thailand*
30. Till M., Brauman A., Chambon B., Bessou C., Gay F., Promkhambut A., Nimkingra P., Robain H. and Koonklang N., (2014). *Impacts des pratiques culturales sur l'écosystème du sol dans les plantations d'hévéa du Nord-est de la Thaïlande, Journées d'Etude des Sols.30 june-4 july.2014. Bourget du Lac, France*
31. Kyulavski V., Kyulavski V., Promnok T., Till M., Peerawat M., Alonso P., Villenave C., Suvannang N., Trap J., Nimkingrat P. and Brauman A.,(2014). *Why soil biota matters for agriculture? The impact of agricultural practices on soil biological functioning. Land Development Department Research Days 25-26 August 2014.*
32. Peerawat M., et al.,(2014) *Impact of Land Use Change on Soil Microbial Biodiversity, the case of cassava Transition to Rubber in Chachoengsao.*Land Development Department Research Days 25-26 August 2014.
33. Chambon B., Kongmanee C., Anghong S., Till M., Brauman A., Gay F., Promkhambut A., Nimkingra P., Koonklang N., Robain H., Michels T. and Lacote R., (2014). *Understanding the relationships between farmers practices and the agro-environmental performances of rubber smallholdings: a case study in Thailand.* In: Rubber Plant Summit, 25-26 March 2014, Phnom-Penh, Cambodge. Oral presentation
34. Peerawat M., Till M., Kyulavsky V., Villenave C., Nimkingrat P., Koonklang N., Trap J. and Brauman A., (2014). *Could soil macrofauna and nematofauna be suitable indicators of the agricultural practices impacts on soil functioning in Rubber plantation ?* Workshop on Epidemiology of Plant Parasitic nematode in South East Asia, 16 -17th June 2014, Hanoi, Vietnam. Oral presentation
35. Trap J., Ranoarisoa P., Perrin A., Irshad U., Villenave C., Brauman A. and Plassard C.,(2014) *Do soil bacteria-bacterial nematodes interactions enhance plant P nutrition? Phytate mineralization as a case study.* Workshop on Epidemiology of Plant Parasitic nematode in South East Asia, 16 -17th June 2014, Hanoi, Vietnam. Oral presentation
36. Brauman A., Lafaye, Marin, Perawatchara M., Gay F., Chayawat, C., Robain H., Choosai C., Junrungreang S., Chantuma P., Trap J. and Nopmanee S., (2014) *Impact of rubber plantation on soil macrofauna biodiversity,* World Congress on Agroforestry, 10-12 February 2014, New Delhi, India. Oral presentation
37. Thaler P., Chambon B., Gay F., Lacote R., Bosc PM., Brauman A., Robain H., Kasemsap P., Sajjaphan K., Sdoodee S. and Chantuma P., (2014). *Can family rubber-farms match global challenges?* World Congress on Agroforestry. 10-12 Feb 2014. New Delhi, India

4. Report

1. Lafaye de Micheaux M., (2013) *Impact of tree plantations on the soil ecosystem: Case of rubber plantations in Chachoengsao province, Thailand.* Final report of gap year Internship. AgroParis Tech. 2013. 18p. 2013
2. Till M., (2013) *Impact des plantations d'hévéa sur le fonctionnement de l'écosystème sol.* Etude mis en place dans la province de Khon Kaen, Thaïlande. Final report of engineering school. INP Purpan Toulouse. 2013
3. Kyulavski V., (2014) *The impact of agricultural practices on soil functional biodiversity: the Rubber tree cultivation case in Thailand.* Final report. Master Bioressources, Parcours Ingénierie Biologique pour l'Environnement (IBE). 2014
4. Thibaut P., (2014) *Analyse de l'impact des pratiques de fertilisation sur les performances et le fonctionnement de plantations villageoises d'hévéas en Thaïlande.* Master 2 Isara, Lyon

5. Conference or lectures

1. Orange D. and Tran Thi Nhu T., (2014). *POCIS in practice.* Faculty of Chemistry, VNUS-HoChiMinh City, 18 April 2014, 7 Vietnamese participants from North and South Vietnam.