

Christophe Dominik

POSTDOCTORAL RESEARCHER

Theodor-Lieser-Strasse 4, 06120 Halle, Germany

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10.11.1985 | French nationality



Summary

Practical experience in landscape ecology, agroecology, and community ecology. 10+ years of experience in geographical information systems (GIS) and statistical software (R). 5+ years of experience in fieldwork and arthropods identification. 1+ year of work experience abroad (Philippines). Strong interests in landscape ecology, macroecology, pollination services, biological control, community ecology, gut microbiome, and data visualization.

Education

Martin Luther University Halle-Wittenberg

DR. RER. NAT. | MAGNA CUM LAUDE

Halle (Saale), Germany

2019

Université de La Réunion

MASTER OF SCIENCE IN BIODIVERSITY AND TROPICAL ECOSYSTEMS

Saint-Denis, Réunion Island

2011

Université Henri-Poincaré (UHP Nancy-1)

BACHELOR OF SCIENCE IN BIOLOGY OF ORGANISMS AND POPULATIONS

Nancy, France

2009

Research Experience

Helmholtz-Zentrum für Umweltforschung (UFZ)

POSTDOCTORAL RESEARCHER | DEPARTMENT OF COMMUNITY ECOLOGY (BZF)

Halle (Saale), Germany

Jan. 2019 - present

P.I.: Schweiger O. | Main projects: PoshBee, VODOO, INTERCEDE, iINTERACT, Safeguard, MAMBO

- Mapping and classification of > 200 study sites using ArcGIS Pro.
- Fieldwork including nectar/haemolymph extraction, pollinator sampling, beekeeping activities, bumblebee experiments, pitfall traps.
- P.I. of two third-party funded projects iINTERACT, iPATHOS.
- Co-P.I. and WP leader of the INTERCEDE project.
- Project budget management.
- Supervision of PhD students, Master students, and scientific staff.

Helmholtz-Zentrum für Umweltforschung (UFZ)

PHD STUDENT/GUEST SCIENTIST | DEPARTMENT OF COMPUTATIONAL LANDSCAPE ECOLOGY (CLE)

Leipzig, Germany

Jul. 2012 - Dec. 2018

PhD Thesis: *The effects of landscape heterogeneity on arthropod communities in rice agro-ecosystems.*

Supervisors: Seppelt R. and Václavík T. | Magna Cum Laude | Main project: LEGATO

- Mapping and classification of 30 study sites using ArcGIS 10.
- Landscape heterogeneity quantification via the calculation of landscape metrics (Fragstats).
- Supervision of technical staff.

International Rice Research Institute (IRRI)

GUEST SCIENTIST | CROP AND ENVIRONMENTAL SCIENCES DIVISION (CESD)

Los Baños Laguna, Philippines

Jun. 2013 - Sep. 2014

Advisor: Horgan F.G. | Main project: LEGATO

- Sampling and arthropod identification (~ 80000 individuals) to morphospecies level (~ 200 morphospecies).
- Supervision of fieldwork assistants in the mountainous region of the Philippines.

Centre national de la recherche scientifique (CNRS)

RESEARCH ASSISTANT | LITTORAL, ENVIRONNEMENT, GÉOMATIQUE, TÉLÉDÉTECTION (UMR LETG)

Nantes, France

Mar. 2012 - Jun. 2012

Supervisor: Godet L. | Main project: ECOSAL ATLANTIS

- Bird counts of common European passerine birds in salinas during a two weeks period.
- Mapping of the salinas located in Ré Island using ArcView 3.1 and calculation of landscape metrics (Fragstats).

Centre national de la recherche scientifique (CNRS)

Nantes, France

UNDERGRADUATE RESEARCH STUDENT | LITTORAL, ENVIRONNEMENT, GÉOMATIQUE, TÉLÉDÉTECTION (UMR LETG)

Feb. 2011 - Jun. 2011

M.Sc. Thesis: *Influence des structures spatiales sur la distribution des oiseaux terrestres dans un paysage fragmenté: cas des marais salants de Guérande.*

Supervisor: Godet L. | M.Sc.2 Thesis grade: 16.67/20 Rank: 2/17 | Main project: ECOSAL ATLANTIS

- Material/Methods and analysis similar to the research experience carried out in 2012 at the CNRS (see above).

Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)

Saint-Pierre, Réunion Island

UNDERGRADUATE RESEARCH STUDENT | PEUPELEMENTS VÉGÉTAUX ET BIO-AGRESSEURS EN MILIEU TROPICAL (UMR PVBMT)

Jan. 2010 - Jun. 2010

Supervisor: Quilici S. | M.Sc.1 Thesis grade: 15.73/20 Rank: 5/35

- Semi-field experiments: Infestation of four plant species within the Rosacea family with 40 larvae of *C.janthina*.
- Daily survival monitoring and GLM analysis to test the food specificity of *C.janthina* on Rosacea plants.

Presentations

INTERNATIONAL CONFERENCES

SFE GFÖ EEE - Joint meeting, International Conference on Ecological Sciences

Metz, France

DOMINIK C., WOGRAM S., MICHALSKI S., SCHWEIGER O.

Nov. 2022

Talk: Pollen limitation, local resource availability and pollinator community composition affect the fertilization success of *Scabiosa ochroleuca*.

SCAPE - Scandinavian Association of Pollination Ecology - Annual Meeting

Höör, Sweden

PAPANIKOLAOU A.D., KÜHN I., FRENZEL M., ..., POTTS S.G., ROBERTS S.P.M., SCHWEIGER O.

Oct. 2019

Poster: Wild bee and floral diversity co-vary in response to the direct and indirect impacts of land use.

GfÖ - Ecological Society of Germany, Austria, and Switzerland - Annual Meeting

Vienna, Austria

DOMINIK C., HORGAN F.G., SETTELE J., SEPPELT R., VÁCLAVÍK T.

Sep. 2018

Talk: Landscape composition, configuration, and trophic interactions shape arthropod communities in rice agro-ecosystems.

GfÖ - Ecological Society of Germany, Austria, and Switzerland - Annual Meeting

Göttingen, Germany

DOMINIK C., VÁCLAVÍK T., HORGAN F.G., SETTELE J., SEPPELT R.

Sep. 2015

Talk: Effects of landscape structures on rice agroecosystem biodiversity and biological control across the Philippines.

FONA - Sustainable Land Management - Status Conference

Berlin, Germany

DOMINIK C., VÁCLAVÍK T., HORGAN F.G., SETTELE J., SEPPELT R.

Apr. 2013

Talk: The effects of landscape heterogeneity on the biocontrol-production function in the rice dominated agroecosystems.

PROJECT'S ANNUAL GENERAL MEETINGS (AGM)

PoshBee - AGM 2023

Rome, Italy

DOMINIK C., WUBET T. & SCHWEIGER O.

Mar. 2023

Safeguard - AGM 2023

Sofia, Bulgaria

DOMINIK C., MICHALSKI S., & SCHWEIGER O.

Mar. 2023

Safeguard - AGM 2022

Online

DOMINIK C., MICHALSKI S., & SCHWEIGER O.

Jan. 2022

PoshBee - AGM 2021

Online

DOMINIK C., & SCHWEIGER O.

Jan. 2021

PoshBee - AGM 2020

Marseille, France

DOMINIK C., & SCHWEIGER O.

Jan. 2020

LEGATO - AGM 2016

Banau, Philippines

DOMINIK C., HORGAN F.G., SETTELE J., SEPPELT R., VÁCLAVÍK T.

Aug. 2016

LEGATO - AGM 2015

Yogyakarta, Indonesia

DOMINIK C., VÁCLAVÍK T., HORGAN F.G., SETTELE J., SEPPELT R.

Mar. 2015

LEGATO - AGM 2013

Hanoi, Vietnam

DOMINIK C., VÁCLAVÍK T., HORGAN F.G., SETTELE J., SEPPELT R.

Feb. 2013

Research Grants, Funding, and Prize

RESEARCH GRANTS AND FUNDING

Total funding acquired: 43.1k EUR

iDiv Flexpool Support Fund call

CONSUMABLES FOR PATHOGEN SCREENING, IPATHOS PROJECT | P.I.

10k EUR

2023

Helmholtz-Zentrum für Umweltforschung (UFZ) TB Support Fund

CONSUMABLES FOR GUT MICROBIOME ANALYSES | P.I.

8k EUR

2022

Helmholtz-Zentrum für Umweltforschung (UFZ) TB Support Fund

PERSONNEL (HiWi & RESEARCH ASSISTANT) | Co-P.I.

9.6k EUR

2022

iDiv Flexpool Support Fund call

CONSUMABLES FOR GUT MICROBIOME, PATHOGEN & IMAGING FLOW CYTOMETRY ANALYSES, INTERACT PROJECT | P.I.

10k EUR

2021

Helmholtz-Zentrum für Umweltforschung (UFZ) TB Support Fund

CONSUMABLES FOR GUT MICROBIOME, PATHOGEN & IMAGING FLOW CYTOMETRY ANALYSES, INTERACT PROJECT | P.I.

5k EUR

2021

Helmholtz-Zentrum für Umweltforschung (UFZ) TB PhD consortium

INTERCEDE PROJECT | Co-P.I. AND WP LEADER

Three PhD positions

2019

HIGRADE funding

EXTERNAL COURSE AND TRAVEL COSTS

500 EUR

2014

PRIZE

Helmholtz-Zentrum für Umweltforschung (UFZ)

PERFORMANCE BONUS FOR SPECIAL ACHIEVEMENTS

2k EUR

2022



Professional Activities and Memberships

RESEARCH PROJECTS

WildPosh : Pan-European assessment, monitoring, and mitigation of chemical stressors on the health of wild pollinators

INVOLVED SCIENTIST

Horizon Europe

2024 -

RestPoll : Restoring Pollinator habitats across European agricultural landscapes based on multi-actor participatory approaches

INVOLVED SCIENTIST

Horizon Europe

2023 - present

MAMBO : Modern approaches to the monitoring of biodiversity

INVOLVED SCIENTIST

Horizon Europe

2022 - present

Safeguard : Safeguarding European wild pollinators

INVOLVED SCIENTIST

Horizon 2020

2021 - present

INTERACT : Impacts of landscape structure, floral resources, and land-use intensity on the health of beneficial arthropods in agroecosystems

PRINCIPAL INVESTIGATOR

iDiv and UFZ support funds

2021

INTERCEDE : Interactions of farmland biodiversity and agricultural ecosystem services under climate change

WP LEADER AND CO-P.I.

UFZ

2020 - 2023

VOODOO : Viral eco-evolutionary dynamics of wild and domestic pollinators under global change

INVOLVED SCIENTIST

BiodivERsA

2020 - 2023

PoshBee : Pan-European assessment, monitoring, and mitigation of stressors on the health of bees

INVOLVED SCIENTIST

Horizon 2020

2019 - 2023

LEGATO : Land-use intensity and ecological engineering - Assessment tools for risks and opportunities in irrigated rice production systems

INVOLVED SCIENTIST, PHD STUDENT

BMBF

2011 - 2016

ECOSAL-ATLANTIS : Ecotourism in the Atlantic salt-marshes: a strategy for integral and sustainable development

INVOLVED UNDERGRADUATE, MASTER STUDENT

INTERREG

2007 - 2013

ORGANISATION ACTIVITIES

Conference: Biodiversity monitoring using digital methods and artificial intelligence: shared challenges and opportunities

SESSION CO-CHAIR | GFÖ ANNUAL MEETING 2023

[Leipzig, Germany](#)

Sep. 2023

Workshop: Synthesis workshop

CO-ORGANIZER | SAFEGUARD PROJECT

[Leipzig, Germany](#)

Feb. 2023

Workshop: UFZ TB1-IP1 PhD Day

CO-ORGANIZER | UFZ

[Leipzig, Germany](#)

Nov. 2022

Event: Lange Nacht der Wissenschaften

CO-ORGANIZER

[Halle, Germany](#)

Jul. 2019, 2022

PEER-REVIEWS

Journals N = 37 completed reviews of 26 manuscripts

Landscape Ecology (12), Agriculture Ecosystems & Environment (7), Paddy and Water Environment (3), Journal of Applied Ecology (3), Ecology and Evolution (2), BMC Ecology (2), Basic and Applied Ecology (2), Philosophical Transactions of the Royal Society B (2), Environmental Research Letters (1), Journal of Insect Conservation (1), Insects (1), Scientific Reports (1).

Proposals iDiv Flexpool (3).

PROFESSIONAL MEMBERSHIPS

iDiv associate member (**iDiv**), Gesellschaft für Ökologie (**Grö**), Société Française d'Écologie (**SFE**).

Professional Outreach

MEDIA INTERVIEWS

Viren bedrohen die Welt der Insekten

 [LINK TO THE ARTICLE](#)

[MDR Sachsen](#)

Jul. 2020

PRESS & BLOGS

Better many small than a few large: how landscape configuration affects arthropod communities in rice agroecosystems

 [LINK TO THE ARTICLE](#)

[The Applied Ecologist's Blog](#)

Aug. 2018

Professional Supervision

PHD STUDENTS


Wogram Simon , Martin Luther University Halle-Wittenberg, Germany	Co-supervisor	2023 - present
MODERN TECHNOLOGIES FOR POLLINATOR MONITORING		


Heuschele Jonna , Martin Luther University Halle-Wittenberg, Germany	Main supervisor	2020 - present
THE EFFECTS OF LANDSCAPE HETEROGENEITY AND CROP DIVERSITY ON BIOLOGICAL PEST CONTROL AND POLLINATOR HEALTH		

Liu Yicong , Martin Luther University Halle-Wittenberg, Germany	Co-supervisor	2020 - present
POLLINATOR-PLANTS TRAIT MATCHING; POLLEN AND NECTAR QUALITY; LANDUSE EFFECTS ON NETWORKS RESILIENCE		

MASTER STUDENTS

Feldmann Noah , Martin Luther University Halle-Wittenberg, Germany	Main supervisor	2023 - present
EFFECTS OF TRAFFIC, FLORAL RESOURCES, AND LANDSCAPE STRUCTURE ON POLLINATOR COMMUNITIES		

Wogram Simon , Martin Luther University Halle-Wittenberg, Germany	Main supervisor	2022 - 2023
DRIVERS OF POLLEN LIMITATION IN SCABIOSA OCHROLEUCA: RELATIVE IMPORTANCE OF ENVIRONMENTAL FACTORS AT LOCAL, SITE AND LANDSCAPE SCALES		
 LINK TO THE PDF		

Leyrer Dorothea , Friedrich Wilhelm University of Bonn, Germany	Main supervisor	2021 - 2022
THE EFFECTS OF LANDSCAPE STRUCTURE, FLORAL RESOURCES AND LAND-USE INTENSITY ON THE FORAGING BEHAVIOUR AND COLONY PERFORMANCE OF BUMBLEBEES		
 LINK TO THE PDF		

BACHELOR STUDENTS

Priese Carlotta, Weihenstephan-Triesdorf University, Germany | Co-supervisor

2020 - 2021

Professional Skills

General: Experience in leading and managing interdisciplinary projects, and in supervising staff, doctoral and master students.

Practical experience in experimental design, field sampling, and statistical analyses.

Software: R, ArcGIS 3.1/9/10/Pro, Fragstats, Adobe CS5, Markdown, GitHub.

Statistical analyses: ANOVA, LM/LME/GLS/GLM/GLMM, dissimilarity matrices, RLQ, 4th-corner, SEM.

Sampling methods: Sweep-net, suction sampler (blow-vac), capture-mark-recapture, pitfall traps, color plates, exclusion nets, point counts.

Pollinators: Pollinator-plant networks, camera trapping, haemolymph/nectar extraction, colony performance and fitness assessment.

Bumblebee colony set-up, pollen collection.

Fauna identification: Tropical Asian rice-arthropods, European arthropods: hemipteran, heteropteran, lepidopteran, bombus.

European passerine birds, tropical passerine birds (La Réunion Island).

Languages: French (Mother tongue), English (Proficient), German (B1).

Publications

PEER-REVIEW ARTICLES

First author: 5/11 (45 %)

Last author: 0/11 (0 %)

Corresponding author: 6/11 (55 %)

† These authors contributed equally to the manuscript



- [11] Høye T.T., August T., Banzan Mario V., ..., **Dominik C.**, ..., & Stowell S. (2023). Modern Approaches to the Monitoring of Biodiversity (MAMBO). **Research Ideas and Outcomes**, 9: e116951.
<https://doi.org/10.3897/rio.9.e116951>
- [10] Nicholson C.†, Knapp J.†, Kiljanek T., ..., **Dominik C.**, ..., & Rundlöf M. (2023). Agricultural pesticide use negatively affects bumblebee colonies across Europe. **Nature**, 1-4.
<https://doi.org/10.1038/s41586-023-06773-3>
- [9] Bottero I.†, **Dominik C.**†, Schweiger O.†, ..., & Stout J. (2023). Impact of landscape configuration and composition on pollinator communities across different European biogeographic regions. **Frontiers in Ecology and Evolution**, 11:309.
<https://doi.org/10.3389/fevo.2023.1128228>
- [8] Hodge S., Schweiger O., Klein A.M., ..., **Dominik C.**, ..., & Stout J. (2022). Design and planning of a transdisciplinary investigation into farmland pollinators: rationale, co-design, and lessons learned. **Sustainability**, 14(17), 10549.
<https://doi.org/10.3390/su141710549>
- [7] Gérard M., Baird E., Breeze T., **Dominik C.**, & Michez D. (2022). Impact of crop exposure and agricultural intensification on the phenotypic variation of bees. **Agriculture, Ecosystems & Environment**, 338.
<https://doi.org/10.1016/j.agee.2022.108107>
- [6] **Dominik C.**, Seppelt R., Horgan F.G., Settele J., & Václavík T. (2022). Landscape heterogeneity filters functional traits of rice arthropods in tropical agroecosystems. **Ecological Applications**, e2560.
<https://doi.org/10.1002/eap.2560>
- [5] Vanderplanck M., Michez D., Albrecht M., ..., **Dominik C.**, ..., & Gérard M. (2021). Monitoring bee health in European agro-ecosystems using wing morphology and fat bodies. **One Ecosystem** 6: e63653.
<https://doi.org/10.3897/oneeco.6.e63653>
- [4] Settele J., Heong K.L., Kühn I., ..., **Dominik C.**, ..., & Wiemers M. (2018). Rice Ecosystem Services in South-East Asia. **Paddy and Water Environment**, 16: 211-214.
<https://doi.org/10.1007/s10333-018-0656-9>
- [3] **Dominik C.**, Seppelt R., Horgan F.G., Settele J., & Václavík T. (2018). Landscape composition, configuration, and trophic interactions shape arthropod communities in rice agro-ecosystems. **Journal of Applied Ecology**, 55: 2461-2472.
<https://doi.org/10.1111/1365-2664.13226>

- [2] **Dominik C.**, Seppelt, R., Horgan F.G., Marquez L., Settele J., & Václavík T. (2017). Regional-scale effects override the influence of fine-scale landscape heterogeneity on rice arthropod communities. **Agriculture, Ecosystems & Environment**, 246: 269–278.
<https://doi.org/10.1016/j.agee.2017.06.011>
- [1] **Dominik C.**, Ménanteau L., Chadenas C., & Godet L. (2012). The influence of salina landscape structures on terrestrial bird distribution in the Guérande basin (Northwestern France). **Bird Study**, 59: 483–495.
<https://doi.org/10.1080/00063657.2012.715279>

IN REVIEW/PREPARATION

- [10] Sponsler D. et al. High rates of nectar depletion in summer grasslands indicate competitive conditions for pollinators. *(submitted in Oikos)*
- [9] Laurent M. et al. Newly created indices reveal that pollinators are differently exposed to pesticides depending on crop surroundings at the European level. *(submitted in Science of the Total Environment)*
- [8] Heuschele J. et al. Seasonal dynamics of flower-visitor networks are mediated by spatio-temporal resource availability. *(in preparation)*
- [7] Maurer C. et al. Abundant generalist pollinators prevent a rapid decline in interaction diversity upon landscape simplification. *(submitted in Diversity and Distributions)*
- [6] Liu Y. et al. Disentangling the impacts of coadaptation according to pollinator dietary demands, flower morphology, and ‘other’ phylogenetic constraints. *(submitted in Oikos)*
- [5] **Dominik C.** et al. Towards a better understanding of bee health: Effects of multiple environmental pressures on the gut microbiome of *Bombus terrestris* across a pan-European site network *(in preparation)*
- [4] Radermacher N. et al. Variation in the diet of spiders in rice paddy ecosystems of different landscape complexity depends on species identity and hunting strategy *(in preparation)*
- [3] Askri D. et al. Monitoring bee health in natural environment in two-mass flowering crops by blood test using MALDI BeeTyping® mass spectrometry *(submitted in Science of the Total Environment)*
- [2] Babin A. et al. Another brick in the wall: spillover of infectious and parasitic agents between bee species in a pan-European assessment *(in review in Scientific Reports)*
- [1] Dietersberger M. et al. Effects of multiple habitat types and landscape composition on trap-nesting bees, wasps and their natural enemies in a gradient of land use *(in preparation)*

THESES

- [2] **Dominik C. (2019).** The effects of landscape heterogeneity on arthropod communities in rice agro-ecosystems. Doctoral Thesis, Martin-Luther-Universität Halle-Wittenberg.
 Link to the PDF <http://dx.doi.org/10.25673/13861>
- [1] **Dominik C. (2011).** Influence des structures spatiales des marais salants sur les communautés d’oiseaux terrestres. Master Thesis, Université de La Réunion.
 Link to the PDF