Christophe Dominik

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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

Université de La Réunion Saint-Denis, Réunion Island

MASTER OF SCIENCE IN BIODIVERSITY AND TROPICAL ECOSYSTEMS

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)

Halle (Saale), Germany

POSTDOCTORAL RESEARCHER | DEPARTMENT OF COMMUNITY ECOLOGY (BZF)

Jan. 2019 - present

- P.I.: Schweiger O. | Main projects: PoshBee, VOODOO, INTERCEDE, iNTERACT, Safeguard, MAMBO, RestPoll, WildPosh, ANTENNA
- 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 three third-party funded projects iNTERACT, iPATHOS, iPATHOTELS.
- 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)

Leipzig, Germany Jul. 2012 - Dec. 2018

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

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)

Los Baños Laguna, Philippines

Jun. 2013 - Sep. 2014

GUEST SCIENTIST | CROP AND ENVIRONMENTAL SCIENCES DIVISION (CESD) 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)

Nantes, France

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

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).

Mar. 2012 - Jun. 2012

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

Methods and analyses 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 | Peuplements 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 Cibdela 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 Sep. 2018

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

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)

Safeguard - AGM 2024 Padua, Italy Feb. 2024 DOMINIK C., MICHALSKI S., & SCHWEIGER O.

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 Banaue, 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: 50.6k EUR

iDiv Flexpool Support Fund call	7.5k EUR
Consumables for pathogen screening, iPATHOTELS project P.I.	2024
iDiv Flexpool Support Fund call	10k EUR
Consumables for pathogen screening, iPathos project P.I.	2023
Helmholtz-Zentrum für Umweltforschung (UFZ) TB Support Fund	8k EUR
Consumables for gut microbiome analyses P.I.	2022
Helmholtz-Zentrum für Umweltforschung (UFZ) TB Support Fund	9.6k EUR
Personnel (HiWi & Research assistant) Co-P.I.	2022
iDiv Flexpool Support Fund call	10k EUR
Consumables for gut microbiome, pathogen & imaging flow cytometry analyses, iNTERACT project P.I.	2021
Helmholtz-Zentrum für Umweltforschung (UFZ) TB Support Fund	5k EUR
Consumables for gut microbiome, pathogen & imaging flow cytometry analyses, iNTERACT project P.I.	2021
Helmholtz-Zentrum für Umweltforschung (UFZ) TB PhD consortium	Three PhD positions
INTERCEDE PROJECT CO-P.I. AND WP LEADER	2019
HIGRADE funding	500 EUR
External course and travel costs	2014

PRIZE

INVOLVED SCIENTIST

INVOLVED SCIENTIST, PHD STUDENT

Helmholtz-Zentrum für Umweltforschung (UFZ) 2k EUR PERFORMANCE BONUS FOR SPECIAL ACHIEVEMENTS 2022

Professional Activities and Memberships

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

LEGATO: Land-use intensity and ecological engineering - Assessment tools for risks and

opportunities in irrigated rice based production systems

RESEARCH PROJECTS	
☐ ANTENNA: Making technology work for monitoring pollinators INVOLVED SCIENTIST	Biodiversa+ 2024 - present
☑ WildPosh: Pan-European assessment, monitoring, and mitigation of chemical stressors on the health of wild pollinators	Horizon Europe
INVOLVED SCIENTIST	2024 - present
☐ RestPoll: Restoring Pollinator habitats across European agricultural landscapes based on multi-actor participatory approaches	Horizon Europe
Involved scientist	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	UFZ
Co-P.I. and WP Leader	2020 - 2023
☑ VOODOO: Viral eco-evolutionary dynamics of wild and domestic pollinators under global change	BiodivERsA

2020 - 2023

BMBF

2011 - 2016

Horizon 2020 2019 - 2023

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

INVOLVED UNDERGRADUATE, MASTER STUDENT

INTERREG 2007 - 2013

Mar. 2024

Feb. 2023

Nov. 2022

ORGANISATION ACTIVITIES

CONFERENCES

- ANTENNA Kick-off meeting 2024 Leipzig, Germany

CO-ORGANISER

- GfÖ Annual Meeting 2023: Biodiversity monitoring using digital methods and artificial intelligence: Leipzig, Germany

shared challenges and opportunities

SESSION CO-CHAIR Sep. 2023

WORKSHOPS

- Safeguard project synthesis workshop Leipzig, Germany

CO-ORGANISER

- UFZ TB1-IP1 PhD Day Leipzig, Germany

CO-ORGANISER

EVENTS

- Lange Nacht der Wissenschaften Halle, Germany

Jul. 2019, 2022 CO-ORGANISER

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).

Master (3), Bachelor (1). Theses

PROFESSIONAL MEMBERSHIPS

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

Professional Outreach

MEDIA INTERVIEWS

Viren bedrohen die Welt der Insekten MDR Sachsen ☑ LINK TO THE ARTICLE Jul. 2020

PRESS & BLOGS

Bees are still being harmed despite tightened pesticide regulations ScienceDaily ☑ LINK TO THE ARTICLE Nov. 2023

Better many small than a few large: how landscape configuration affects arthropod

The Applied Ecologist's Blog communities in rice agroecosystems

☑ LINK TO THE ARTICLE Aug. 2018

Professional Supervision

PHD STUDENTS

Hamilton Murray, Martin Luther University Halle-Wittenberg, Germany Co-supervisor 2024 - present MODERN TECHNOLOGIES FOR BUMBLE BEE MONITORING

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

Slivensky-Graf Cassidy, University of Bremen, Germany Main supervisor 2021 - 2024

The effects of landscape structure and land-use intensity on the gut bacterial communities of *Poecilus*

cupreus and Anchomenus dorsalis (Coleoptera: Carabidae)

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:
 5/14 (36 %)

 Last author:
 0/14 (0 %)

 Corresponding author:
 9/14 (64 %)

- [†] These authors contributed equally to the manuscript
- [14] Askri D., Pottier M., Arafah K., ..., **Dominik C.**, ..., & Bulet P. (2024). A blood test to monitor bee health across a European network of agricultural sites of different land-use by MALDI BeeTyping mass spectrometry. **Science of the Total Environment**, 172239. https://doi.org/10.1016/j.scitotenv.2024.172239
- [13] Laurent M., Bougeard S., Caradec L., ..., **Dominik C.**, ..., & Chauzat M.P. (2024). Novel indices reveal that pollinator exposure to pesticides varies across biological compartments and crop surroundings. **Science of the Total Environment**, 927:172118. https://doi.org/10.1016/j.scitotenv.2024.172118
- [12] Babin A., Schurr F., Delannoy S., ..., **Dominik C.**, ..., & Dubois E. (2024). Distribution of infectious and parasitic agents among three sentinel bee species across European agricultural landscapes. **Scientific Reports**, 14 (1), 3524. http://dx.doi.org/10.1038/s41598-024-53357-w

[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

Deminik C. Connolt D. Hargon E.C. Cottola I. 9. Václavík T. (2022)

[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 arthopod 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

- [8] Tourbez C. et al. (in preparation)
- [7] Sponsler D. et al. (submitted in Oikos)
- [6] Heuschele J. et al. (in preparation)
- [5] Maurer C. et al. (submitted in Diversity and Distributions)
- [4] Liu Y. et al. (submitted in Scientific Reports)
- [3] Dominik C. et al. (in preparation)
- [2] Radermacher N. et al. (in preparation)
- [1] Dietenberger M. et al. (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