



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6426

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Bioscienze dell'Università degli Studi di Milano**

Scientist- in - charge: **Prof. Losapio Gianalberto**

Camille Vernier

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Camille
Name	Vernier

PRESENT OCCUPATION

Appointment	Structure
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EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
Specialization			
PhD	Ecology and Evolution	Montpellier (FR)	2023
Master	Mathematics-Biostatistics	Montpellier (FR)	2018
Degree of medical specialization			
Degree of European specialization			
Other	Bachelor of mathematics	Nantes (FR)	2016

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date	of	Association	City
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registration		

FOREIGN LANGUAGES

Languages	level of knowledge
French	Mother tongue
English	C1
Spanish	A2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award

TRAINING OR RESEARCH ACTIVITY

<p>description of activity</p> <p>2019-2023</p> <p>PhD - Ecology and evolution</p> <p>CIRAD, UMR CBGP, Montferrier-sur-Lez, France</p> <p>Supv : Cyril PIOU, Marie-Pierre CHAPUIS, Jean-Pierre ROSSI</p> <p>Collective movements and phenotypic plasticity: a study of locust phase polyphenism at multiple spatio-temporal scales.</p> <p>The objectives of the thesis were to : (1) Explore with an agent-based model the impact of spatial resource distribution and inter-individual interactions on nymphs locust foraging success, to find out for which landscape and movement characteristics will gregarious have an advantage over solitary over a half-day walk. (2) Explore the hypothesis of an attractive effect of faeces on gregarious locusts, which could ensure a better cohesion of the band on a larger spatio-temporal scale, by performing behavioural olfactometric assays on L3-stage nymphs of the desert locust, <i>Schistocerca gregaria</i>, with faeces from several age classes (1h or 24h), and chemical analyses (GC-MS) to explore which volatile organic compounds were emitted from nymphs faeces.</p> <p>2019 (6 months)</p> <p>Research Engineer - Applied mathematics</p> <p>Laboratory of Mathematics and its Applications of Pau (LMAP) - Anglet, France</p> <p>Supv : Benoît LIQUET</p> <p>Study of genetic risk factors common to several cancers using a pathway approach: application to thyroid and breast cancers.</p> <p>Development of new statistical methods (frequentist and bayesian) to detect pleiotropy, taking into account group effects (by pathways and genes). Application of those methods on huge SNPs datasets from case-control studies on breast and thyroid cancers. Writing of R and bash scripts in a parallel environment (cluster).</p>
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2018 (6 months)

Master degree's internship - Population genetics

UMR CBGP, Montferrier-sur-Lez, France

Supv : Raphaël LEBLOIS, Jean-Michel MARIN, François ROUSSET

Estimating continuous population dispersion from genomic data: what can new simulation-based inference methods achieve?

The objectives of this internship were to test new simulation-based inference methods in a spatialized continuous population setting, and to study population demography in space and time. More specifically, the main questions were to (1) Determine the most relevant statistics to best summarize the information contained in spatialized genetic datasets (2) Study which parameters can be estimated from these statistics, and (3) Analyze the performance of the new ABC-RF (Bayesian) and Summary-Likelihood (Frequentist) inference methods, notably by comparison with older ones. } %Study and advanced use of new Bayesian (ABC-RF) and frequentist (Summary-likelihood) statistical methods. Use of a spatialized genetic data simulator (IBDSim) in a parallel environment. Writing of R and bash scripts.

2017 (2 months)

Internship - Medical biostatistics

Poitiers University Hospital, France

Supv : Pr Jean-Philippe NEAU, Dr Paola PALAZZO

Study of the impact of apolipoprotein E genotyping on the expansion of cerebral haemorrhage.

Study and analysis of a medical database: descriptive statistics, univariate and multivariate analyses, parametric and non-parametric tests.

PROJECT ACTIVITY

Year	Project

PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
2021, 12-15 Dec.	Do locust follow their faeces' odours?	Ecology Across Borders, British Ecological Society x Society for Ecology and Evolution (SFE2), Liverpool (UK)



2021, 2-4 Nov.	Les larves de locustes suivent-elles les odeurs de leurs fèces ?}	MAEP-5 Meeting in Animal Ecophysiology, 5th Edition, Montpellier (FR)

PUBLICATIONS

Books
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Articles in reviews
2024 Upwind flight partially explains the migratory routes of locust swarms., M. Sorel, P-E. Gay, C. Vernier, S.Cissé, C. Piou , Ecological Modelling, DOI: 10.1016/j.ecolmodel.2024.110622
2022 Importance of interindividual interactions in ecoevolutionary population dynamics: The rise of demogenetic agentbased models, A. Lamarins, V. Fririon, D. Folio, C. Vernier, L. Daupagne, J. Labonne, M. Buoro, . Lefèvre, C. Piou, S. Oddou-Muratorio, Evolutionary applications, DOI : 10.1111/eva.13508
2022 Faeces' odours attract gregarious locust hoppers, C. Vernier, N. Barthes, M-P. Chappuis, J. Foucaud, J. Huguenin, N. Leménager, C. Piou, Journal of Insect Physiology, DOI: 10.1016/j.jinsphys.2022.104454

Congress proceedings
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OTHER INFORMATION

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Sucé sur Erdre, 19/02/2024

