

## **Dr. Magdalene N. Ngeve**

Department of Entomology  
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### **Education**

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- 2017      **Ph.D. in Biology (Conservation Ecology and Genetics)**  
Vrije Universiteit Brussel, Belgium  
Advisors: Prof. Dr. Ludwig Triest & Prof. Dr. Nico Koedam
- 2013      **M.S in Biology (Environment, Biodiversity and Ecosystems)**  
Vrije Universiteit Brussel, Belgium  
Advisor: Prof. Dr. Marc Kochzius
- 2010      **B.S in Zoology (minor: Medical Laboratory Technology)**  
University of Buea, Cameroon  
Advisor: Dr. Konje Christina

### **Professional Experience**

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- 2025-Present    Assistant Professor of Estuarine and Marine Sciences, Horn Point Laboratory  
University Maryland Centre for Environmental Science, Cambridge, Maryland
- 2024-2025      Director of The Masters of Professional Studies in Applied Entomology Program  
Department of Entomology, University of Maryland, College Park
- 2021-2025      Lecturer, Department of Entomology, University of Maryland, College Park  
~1572 students taught.
- 2021-Present    Maryland’s AGEP PROMISE Academy Fellow, University of Maryland, College Park (an  
NSF- funded program to diversify biological faculty within the University System of  
Maryland)  
Director: Prof. Dr. Robin Cresiski
- 2018-2021      University of Maryland’s President's Postdoctoral Fellow (Research Associate)  
University of Maryland, College Park  
Supervisor: Prof. Dr. Maile Neel
- 2018-2021      Adjunct Instructor, University of Maryland, College Park
- 2013-2017      Graduate Student Researcher\*, Vrije Universiteit Brussel, Belgium
- 2013-2017      Teaching Assistant \*, Vrije Universiteit Brussel, Belgium
- 2014-2016      Fieldwork and field experiment coordinator\*
- 2015-2016      Educational Campaign and capacity building, rural mangrove communities
- 2011-2011      Latex Laboratory Technician, IRAD Cameroon – Ekona Station

2009-2011 Medical Laboratory Technician, Southwest Regional Hospital Annex, Buea

### **Volunteer experience and Internships**

2016-2018 Research Coordinator: Mangrove Ecosystem Program, RCESD, Cameroon

2012 Student Intern (Field Trip Ecology), Vrije Universiteit Brussel, Belgium

2009-2010 Counselor, SW Regional Hospital Annex, Buea, Cameroon

\* *Activities which were part of my responsibilities as a graduate student*

### **Relevant Professional expertise**

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- 1. Teaching** undergraduate and graduate levels courses and labs  
~1572 students taught to date at UMD.
- 2. Research Systems:** Coastal (intertidal), riparian, and riverine ecosystems
- 3. Research approaches:** Field experimentation (e.g., hydrochorous propagule dispersal) and field sampling (plant material)  
Multiple-geographical scale research  
Integrating local ecological knowledge and scientific knowledge for restoration and conservation  
Grassroot restoration/conservation projects (BeeMangrove)  
Data curation and analytical skills  
Team-based and independent research skills
- 4. Manuscript and grant writing**
- 5. Outreach:** Educational campaigns and raising environmental awareness, and mentorship  
Scientific presentation
- 6. Laboratory skills: Molecular techniques** (nucleic acid extraction and purification; DNA cloning, Polymerase Chain Reaction (PCR), Next Generation Sequencing (NGS) library preparation and sequencing.  
**Elemental analyses:** Inductively Coupled Plasma Mass Spectrometry (ICP-MS),  
Sample **lyophilization and digestion:** CEM MARS 5 oven
- 7. Bioinformatics** skills, bash/batch scripting and coding in *R*, for NGS data processing
- 8. Management:** Multi-project management and realization; multi-team management.

### **Scientific Contribution**

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#### **Publications in Peer-Reviewed Journals**

- **Ngeve** MN, Engelhardt KAM, Gray M, & Neel MC (2023). Calm after the storm? Similar patterns of Genetic variation in *Vallisneria americana* populations in the lower Hudson Estuary before and after Hurricane Irene and Tropical Storm. *Ecology and Evolution*.
- Marsden BW, **Ngeve** MN, Neel MC (2022). Assessing the potential for extrapolating restoration and management based on genetic diversity to ecologically similar but geographically isolated locations in the submersed aquatic plant *Vallisneria americana*. *Estuaries and Coasts*.
- **Ngeve** MN, Koedam N., & Triest L (2021). Genotypes of *Rhizophora* propagules from a non-mangrove beach provide evidence of recent long-distance dispersal. *Frontiers in Conservation Science*.
- Triest L, Van der Stocken T, De Ryck D, Kochzius M, Lorent S, **Ngeve** M, Ratsimbazafy HA, Sierens T, van der Ven R, & Koedam N (2021). Expansion of the mangrove species *Rhizophora mucronata* in the Western Indian Ocean launched contrasting genetic patterns. *Scientific Reports*.
- **Ngeve** MN, Koedam N, & Triest L (2020). Runaway fathers? Limited pollen dispersal and mating system in *Rhizophora racemosa* populations of a disturbed mangrove estuary. *Aquatic Botany*.

- **Ngeve MN, Van der Stocken T, Menemenlis D, Koedam N, & Triest L (2017).** Hidden founders? Strong bottlenecks and fine-scale genetic structure in mangrove populations of the Cameroon Estuary complex. *Hydrobiologia*.
- **Ngeve MN, Van der Stocken T, Sierens T, Koedam N, & Triest L (2017).** Bidirectional gene flow on a river mangrove landscape and between-catchment dispersal of *Rhizophora racemosa* (Rhizophoraceae). *Hydrobiologia*.
- **Ngeve MN, Van der Stocken T, Menemenlis D, Koedam N, & Triest L (2016).** Contrasting effects of historical sea level rise and contemporary ocean currents on regional gene flow of *Rhizophora racemosa* in Eastern Atlantic mangroves. *Plos One*.
- **Ngeve MN, Leermakers M, Elskens M & Marc Kochzius (2015).** Assessment of trace metal pollution in sediments and intertidal fauna at the coast of Cameroon. *Environ Monit Assess*.

#### Manuscripts in preparation

- **Ngeve MN, Engelhardt KAM, Gray M, & Neel MC (*in prep*).** Swimming against the tide: Patterns of Genetic connectivity and discontinuity among *Vallisneria americana* populations of a periodically disturbed Riverbed.
- **Ngeve MN (*in prep*).** Valuation of Mangrove Ecosystems: Local Perspectives and Participatory Management in Coastal communities in Cameroon.

#### Oral and Poster presentations (\* non-presenting author)

##### Invited presentations

- **Ngeve MN.** A case for scale: Towards an improved targeted conservation of biological diversity through multiscale and multitool assessment of genetic variation. Horn Point Laboratory, University of Maryland Center for Environmental Science, Cambridge, Maryland (**Oral presentation**) May 29<sup>th</sup>, 2024.
- **Ngeve MN.** A Case for Scale. Institute of Marine and Environmental Technology (IMET) Spring Seminar Series, University of Maryland Center for Environmental Science, Baltimore, MD (**Oral Presentation**). April 10<sup>th</sup>, 2024.
- **Ngeve MN.** History is identity: Genetic variation in a foundation submerged aquatic plant in the Hudson River, NY. Department of Biology Spring Seminar Series, University of Maryland Baltimore County (**Oral Presentation**). May 11<sup>th</sup>, 2022.
- **Ngeve MN.** Disturbance ecology through the lens of a population geneticists: basic concepts, relevance, and case-study. Roosevelt University, Chicago, Illinois (**Oral/over Zoom Guest Lecture**). October 29<sup>th</sup>, 2020.

##### Conference and Workshop Presentations

- **Ngeve MN, Van der Stocken T, Koedam N., & Triest L.** A case for scale: Towards an improved targeted conservation of mangrove ecosystems through multiscale and multitool assessment of genetic variation. ESA Annual Meeting, Long Beach, California (**Poster presentation**). August 4<sup>th</sup> - 9<sup>th</sup>, 2024.
- **Ngeve MN, Engelhardt KAM, Gray M, & Neel MC.** Swimming against the tide: Patterns of genetic connectivity and discontinuity among *Vallisneria americana* populations of a periodically disturbed riverbed. ESA Annual Meeting (**Online audio-enabled poster presentation**). August 2<sup>nd</sup> - 6<sup>th</sup>, 2021.
- **Ngeve MN, Engelhardt KAM, Gray M, & Neel MC.** Calm after the storm? Genetic variability in *Vallisneria americana* populations of the lower Hudson Estuary before and after 2011 Hurricane Irene and Tropical Storm Lee. ESA Annual Meeting (**Online oral presentation**). August 3<sup>rd</sup> - 6<sup>th</sup>, 2020.

- **Ngeve MN.** Patterns and scales of mangrove genetic connectivity, Entomology Spring Semester Seminar Series, University of Maryland, College Park (**Oral Presentation**). February 8, 2019.
- **Ngeve MN,** Van der Stocken T, Koedam N, & Triest L. Patterns of regional- and local- scale genetic connectivity in Eastern Atlantic mangroves. VLIZ Marine Science Day 2017, Brugge, Belgium (**Oral presentation, 5' pitch**). March 3, 2017.
- Tonné N, Van der Stocken T, van Zon A, De Ryck D, **Ngeve M\***, Van Nederveelde F, Venterink HO, Dahdouh-Guebas F, Triest L., Koedam N. Coming of age - The mangrove propagule, parental investment and the dual functionality towards autonomy and establishment. European Conference of Tropical Ecology Brussels, Belgium (Oral presentation). February 7, 2017.
- **Ngeve MN,** Van der Stocken T, Koedam N, & Triest L. Hidden founders or high connectivity or both? Investigating the expansion pathway of mangroves along the Cameroonian coastline. European Conference of Tropical Ecology Brussels, Belgium (Oral presentation). February 9, 2017.
- Van Calck P., Chaves T., **Ngeve MN\***, Denise De Ryck, & Triest L. Twogener analyses and spatial autocorrection of mangrove progeny arrays. Bachelor's honors thesis defense, Brussels, Belgium (Oral presentation). December 12, 2016.
- **Ngeve MN,** Van der Stocken T, Menemenlis D, Koedam N, & Triest L. Contrasting effects of historical sea level rise and contemporary ocean currents on regional gene flow of *Rhizophora racemosa* in Eastern Atlantic mangroves. The Mangrove & Macrobenthos Meeting (MMM4), Florida (**Poster presentation**). July 18- 22, 2016.
- **Ngeve MN,** Sierens T, Koedam N, & Triest L. Bidirectional gene flow on a river mangrove landscape and between-catchment dispersal of *Rhizophora racemosa* (Rhizophoraceae). Book of abstracts – European conference of tropical ecology Göttingen, Germany (**Oral presentation**). 23 February 2016.
- **Ngeve MN,** Sierens T, Koedam N, & Triest L. Connected but not exactly one: The genetic hierarchy in mangroves of a river linear landscape in Cameroon is caused by hydrological factors. Book of abstracts PhD day – Doctoral School of Natural Sciences and (Bioscience) Engineering (NSE). Brussels, Belgium (**Poster & 3 min pitch presentation**). 22 May 2015.
- Nathalie Kana, **Ngeve MN\***, & Triest L. genetic diversity of *Rhizophora racemosa* and *Avicennia germinans* in the Doula – Edea Reserve, Cameroon. VUB Graduate Student Symposium, Brussels, Belgium. June 22nd, 2015. (Oral presentation).
- **Ngeve MN.**, Elskens, M., Leermakers, M., Kochzius, M. Influence of trace metal and organic pollution on the community structure of intertidal gastropods at the coast of Cameroon, in: Mees, J. et al. (Ed.) (2013). Book of abstracts – VLIZ Young Marine Scientists' Day. Brugge, Belgium, 15 February 2013. VLIZ Special Publication, 63: pp. 74. (Poster presentation).

## **Awards, Grants, and Fellowships**

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2021-present	Maryland's AGEP PROMISE Academy Fellow, University of Maryland, College Park (an NSF- funded program to diversify biological faculty within the University System of Maryland) (Research award \$3200)
2020	NEON-ESA Early Career Scholar (Travel Grant \$1000)
2019-2021	University of Maryland's President's Postdoctoral Fellowship Program Postdoctoral Fellowship (> \$115,000)
2013-2017	Vrije Universiteit Brussel-International Relations and Mobility Office Doctoral Fellowship (> €150,000)
2015 -2016	Rufford Foundation, United Kingdom First and Second Small Grant (£10000)

2011-2013 Vrije Universiteit Brussel-International Relations and Mobility Office  
Masters Scholarship (> €55,000).

2007-2010 Cameroon Government Presidential Excellence Award  
University of Buea (~ \$300)

## Language Proficiency

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English Full professional proficiency/mother tongue  
 French Moderate proficiency  
 Dutch Elementary proficiency  
 R Elementary programming

## Teaching and Mentoring Experience

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2021-present Lecturer, Department of Entomology, University of Maryland  
*Principles of Ecology and Evolution* (BSCI160) - Fall 2021, 2022, 2023 2024; Spring 2022, 2024  
*World of Biology II* (BSCI103) - Spring 2022, 2024 - Lab Coordinator  
*Native, Invasive, and Exotic Species* (ENTM747) - Spring; 2022, 2024  
*Special Topics: Evolutionary Biology* (CLFS609J) - Summer 2023, 2024  
*Native, Invasive, and Exotic Species* (ENTM747) – 2022, 2024  
 +Developed a new course “Human-Nature Conflicts” (BSCI127) to run Fall 2025 (planned)

2020 Guest lecture, Roosevelt University – Introductory Genetics class  
*Disturbance ecology through the lens of a population geneticists: basic concepts, relevance, and case-study*

2018-2021 Adjunct (online) Instructor, University of Maryland  
*Pollinator Health* (ENTM747) - Winter 2018  
*Native, Invasive, and Exotic Species* (ENTM 720) - Spring 2019; 2020, 2021

2013-2017 Lab Instructor, Vrije Universiteit Brussel, Belgium  
*Conservation Genetics* Labs (masters and 3<sup>rd</sup> bachelor levels)

2014-2016 Teaching assistant, Vrije Universiteit Brussel  
 Molecular Ecology” 3<sup>rd</sup> year bachelor class

2015-2016 Mentoring students’ research projects  
 One Masters and four Bachelor students

2003-2014 Peer-Education, Buea, Cameroon  
 Education and mentoring of young girls and teen parents in rural areas  
 - Relevance of education  
 - Prevention of teenage pregnancies  
 - Prevention of sexually transmitted infections

## Professional Service

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Journal Reviews: *Journal of Ecology*; *Marine Ecology Progress Series*; *PLOS ONE*; *Forests*; *Plant Ecology & Diversity*; *Environmental Monitoring Assessment*

2022-present Member of the Graduate Affairs Committee (GAC), UMD Department of Entomology

## References

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Dr. Ludwig Triest (Ph.D. advisor, Professor)

Vrije Universiteit Brussel, Belgium, Department of Biology and Bioengineering Sciences

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Dr. Nico Koedam (PhD co-advisor, Professor)

Vrije Universiteit Brussel, Belgium, Department of Biology and Bioengineering Sciences

nikoedam@vub.be | +32-2-6293413

Dr. Maile Neel (Director, Norton-Brown Herbarium; Professor; Postdoc mentor; colleague)

University of Maryland College Park, Department of Entomology, CMNS; and Department of Plant Science and Landscape Architecture, AGNR.

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Dr. Anahi Espindola (Associate Professor; mentor and colleague)

University of Maryland College Park, Department of Entomology, CMNS

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Dr. Marcia Shofner (Director MPAE Program; Senior Lecturer; mentor and colleague)

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