TROPIMUNDO

ERASMUS MUNDUS JOINT MASTER DEGREE IN TROPICAL BIODIVERSITY AND ECOSYSTEMS

Tom VAN der STOCKEN, TROPIMUNDO VUB Local Coordinator

My research focuses on the spatial and temporal patterns of species distributions on Earth and the interactions between coastal ecosystems and climate change. Trained as a Physical Geographer (BSc and MSc) at VUB and KU Leuven, I specialized in 'Terrestrial Ecosystems and Global Change' and later operated in the Biological Sciences (PhD,VUB-ULB). I conducted research at institutes such as the Royal Netherlands Institute for Sea Research (NIOZ) and have been a research affiliate at the Kenya Marine and Fisheries Research Institute (KMFRI) and the California Institute of Technology (Caltech). In 2014, I became a member of the NASA Jet Propulsion Laboratory (JPL) where I later worked as a postdoctoral scholar (2017-2019). At JPL, I contribute to the development and science applications of the Estimating the Circulation and Climate of the Ocean (ECCO) Project and the development, implementation, and improvement of global coastal maps to help guide the Surface Water and Ocean Topography (SWOT) mission observations strategy. In October 2022, I was appointed 100% ZAP at the VUB Biology Department. Currently, my research addresses questions about the interactions between coastal ecosystems and the climate system, initiated during my Marie Skłodowska-Curie fellowship at VUB (2020- 2022), in collaboration with JPL/Caltech, UCLA, and the Moss Landing Marine Laboratories. In 2022, I was elected as a member of the Young Academy of Belgium, an interuniversity association that reaches out to authorities and the public, and focuses on science communication, interdisciplinarity, internationalization, and policy.

1	**Family name**	Van der Stocken		
2	**First name**	Tom		
3	**Place and Date of birth**	Jette, 16th August 1986		
4	**Nationality**	Belgium		
5	**E-mail**	Tom.Van.Der.Stocken@vub.be		
6	**Education / Professional studies**			
	Dates (from-to)	Institution		Degree/diploma
	2011 – 2015	Vrije Universiteit Brussel (VUB), Université Libre de Bruxelles (ULB)		Doctor in Sciences
	2007 – 2010	Vrije Universiteit Brussel (VUB), Katholieke Universiteit Leuven (KUL)		MSc Geography
	2004 – 2007	Vrije Universiteit Brussel (VUB)		BSc Geography
7	**Language skills** Grade skill 1-5 (1 = basic, 5 = excellent, * = mother tongue)			
	Language	Speaking	Reading	Writing
	Dutch	*	*	*
	English	5	5	5
	French	3	4	2

	German	2	2	2
8	**Membership of professional bodies**			
	• Scientific Collaborator at the NASA-Caltech Jet Propulsion Laboratory • Young Academy of Belgium, Royal Flemish Academy of Belgium for Science and the Arts • Gesellschaft für Tropenökologie (GTÖ) – Society for Tropical Ecology • Western Indian Ocean Marine Science Association • Scientific Board of the Flanders Marine Institute (VLIZ)			
9	**Other Skills**			
	Research design and implementation, data collection and analysis, project writing, numeric modeling and simulation, among others.			
10	**Name of organisation currently working for and Present position in the organisation**		• Vrije Universiteit Brussel (VUB) • NASA-Caltech Jet Propulsion Laboratory (JPL)	
11	**Years with the organisation**		VUB: 12 years – JPL: 9 years	
12	**Long-term experience in selected countries/territories**			
	Country	Date	Details	
	Kenya	2012	Research affiliate at the Kenya Marine Fisheries and Research Institute (KMFRI). PhD fieldwork.	
	The Netherlands	Apr. 2012, Apr. 2013	Royal Netherlands Institute for Sea Research, Estuarine and Delta Systems. Flume experiments.	
	California (USA)	Sept. – Oct. 2014	Participation in the educational program 'JPL Visiting Student Researchers Program (JVSRP)' of the NASA-Caltech Jet Propulsion Laboratory (JPL).	
	California (USA)	Sept. – Oct. 2015	Invited researcher at the NASA-Caltech Jet Propulsion Laboratory (JPL).	
	California (USA)	Oct. 2017 – Oct. 2019	Postdoctoral Scholar at the NASA-Caltech Jet Propulsion Laboratory. Contribute to the development and science applications of the ECCO Project and the development, implementation, and improvement of global coastal maps to help guide the SWOT mission observations strategy.	
13	**Professional experience record (selected)**			
	Location	Date	Organisation	
1	Belgium	Oct. 2022 – present	Vrije Universiteit Brussel (VUB)	
	Position	Professor		
	Responsibilities	Teaching, research, project design and management.		
2	Belgium	Sept. 2020 – Sept. 2022	Vrije Universiteit Brussel (VUB)	
	Position	Marie Skłodowska-Curie Postdoctoral Fellow		
	Responsibilities	Research on climate-mangrove interactions.		
3	California	Oct. 2017 – Oct. 2019	NASA-Caltech Jet Propulsion Laboratory	
	Position	Postdoctoral Scholar		
	Responsibilities	Contribute to the ECCO project and SWOT mission.		

14	**Publications**		
	Number of publications in peer-reviewed journals		
	37		
	10 publications that are most representative in the field of tropical biodiversity and ecosystems		
	1. Ximenes et al. & **T. Van der Stocken** (2023). A comparison of global mangrove maps: assessing spatial and bioclimatic discrepancies at poleward range limits. *Sci. Total Environ.* 860, 160380. 2. Raw J., **Van der Stocken T.** et al. (2023). Dispersal and coastal geomorphology limit potential for mangrove range expansion under climate change. *Journal of Ecology* 111, 139–155. 3. **Van der Stocken T**. et al. (2022). Mangrove dispersal disrupted by projected changes in global seawater density. *Nature Climate Change* 12, 685–691. 4. Triest L., **Van der Stocken T.**, Sierens T., Deus E. K., Mangora M. M. & N. Koedam (2021). Connectivity of *Avicennia marina* populations within a proposed marine transboundary conservation area between Kenya and Tanzania. *Biological Conservation* 256, 109040. 5. **Van der Stocken T**. et al. (2019). A general framework for propagule dispersal in mangroves. *Biological Reviews* 94(4): 1547–1575. 6. **Van der Stocken T.** et al. (2019). Global-scale dispersal and connectivity in mangroves. *PNAS* 116(3): 915–922. 7. Simard M., Fatoyinbo L., Smetanka C., Rivera-Monroy V.H., Castañeda-Moya E., Thomas N. & **T. Van der Stocken** (2019). Mangrove canopy height globally related to precipitation, temperature and cyclone frequency. *Nature Geoscience* 12: 40–45. 8. **Van der Stocken T.** et al. (2018). Caught in transit: offshore interception of seafaring propagules from seven mangrove species. *Ecosphere* 9: e02208. 9. **Van der Stocken T.** et al. (2015). Impact of landscape structure on propagule dispersal in mangrove forests. *Marine Ecology Progress Series* 524: 95–106. 10. **Van der Stocken T.** et al. (2013). The role of wind in hydrochorous mangrove propagule dispersal. *Biogeosciences* 10: 895–925.		
15	**Number of conference presentations (between brackets invited contributions)**		
	57 (3) → 22 as lead, 35 as contributor		
16	**Most important awards**		
	Award	Award date	Issuing organisation
1	Ignace Vanderschueren Award for Best PhD	2020	Vrije Universiteit Brussel (VUB)
2	Best Post-Doc Oral Presentation Award	2017	Flanders Marine Institute (VLIZ)
3	Maria Sibylla Merian Award (1st runner-up)	2015	Society for Tropical Ecology
4	Best Student Oral Presentation Award (1st runner-up)	2013	Flanders Marine Institute (VLIZ)
5	Best Student Oral Presentation Award (2nd runner-up)	2012	Meeting on Mangrove ecology, functioning and Management (MMM3)