# Marco D. Visser

PhD candidate at Radboud University Nijmegen. Visiting address: Nijmegen, The Netherlands Heyendaalseweg 135. m.visser@science.ru.nl - marco.d.visser@gmail.com

https://github.com/MarcoDVisser

## Research experience

Since 2011 PhD candidate (Apr 2011 - present) at Institute for Water and Wetland

Research, Plant Ecology Group, Radboud University Nijmegen (The

Netherlands).

Predoctoral Fellow (Apr 2010 - present) at the Smithsonian Tropical Research

Institute, Gamboa (Panama).

Junior researcher (Sept 2009 - Feb 2010) at the Department of Experimental 2009 - 2010

Plant Ecology, Radboud University Nijmegen (The Netherlands)

2008-2009 Short-term Fellow (Oct 2008 - Feb 2009) at the Smithsonian Tropical Research

Institute, Barro Colorado Island (Panama).

MSc. Thesis research (2008-2009) at the Smithsonian Tropical Research Institute, Barro Colorado Island, Panama. MSc. Thesis research (2008-2009) at the unit Mathematical and Statistical

Methods of Wageningen University.

2007 B.A. Thesis research (2007) at the Forest Research Institute Malaysia, Pasoh

Forest Reserve, Malaysia.

2005 Internship (2005) at the Forest Research Institute Malaysia, Kepong, Malaysia.

Internship (2004) at the Mammal Research Institute, Polish Academy of 2004

Sciences, Bialowieza, Poland.

Volunteer (2003) at the Mammal Research Institute, Polish Academy of 2003

Sciences, Bialowieza, Poland.

#### **Education**

2012

2013

2014

2015

In review

September, Wageningen University and research centre, M.Sc. (cum laude, highest 2009

distinction at WU). Forestry and Nature Conservation, with a minor in

Mathematics and Statistical Methods.

September, Larenstein University of Applied Sciences, B.A. Forestry and Nature

Conservation, with specialization in Tropical Forestry. 2007

#### Publications (inc. submitted/ in preparation)

2011 1. M. D. Visser, E. Jongejans, M. van Breugel, P. A. Zuidema, Y. Chen, A. R. Kassim, H. de Kroon. 2011. Strict mast fruiting for a tropical dipterocarp tree: A demographic cost-benefit analysis of delayed reproduction and seed predation.

Journal of Ecology. 99, 1033-1044.

2. M. D. Visser, S. Joseph Wright, Helene C. Muller-Landau, Gemma Rutten and Patrick A. Jansen. Tri-trophic interactions affect density dependence of

seed fate in a tropical forest palm. 2011, Ecology Letters. 14, 1093-1100. 3. B. van Putten, M. D. Visser, P. A. Jansen and H. C. Muller-Landau. Distorted-

distance models for directional dispersal: a general framework and its

application to a wind-dispersed tropical forest trees. Methods in Ecology and Evolution. 2012. 4. B. T. Hirsch, M. D. Visser, R. Kays and P. A. Jansen. Quantifying seed

dispersal kernels from truncated seed-tracking data. Methods in Ecology and Evolution. 2012

5. M. D. Visser. aprof: Amdahl's profiler, directed optimization made easy. R

package version 0.1 - 0.3.1. http://cran.rproject.org/web/packages/aprof/index.html. 2013.

6. P. A. Jansen, M. D. Visser, S. J. Wright, G. Rutten, H. C. Muller-Landau.

Negative density-dependence of seed dispersal and seedling recruitment in a

Neotropical palm. Ecology Letters 17: 1111-1120. 2014.

7. M. D. Visser, S. M. McMahon, C. Merow, P. M. Dixon, S. Record and E. Jongejans. Speeding Up Ecological and Evolutionary Computations in R; Essentials of High Performance Computing for Biologists. PLoS Comput Biol

11(3): e1004140, doi:10.1371/journal.pcbi.1004140, 2015.

In press 8. M. D. Visser, M. Bruijning, S. J. Wright, H. C. Muller-Landau, E. Jongejans, L.

S. Comita and H. de Kroon. Functional traits as predictors of vital rates across

the life-cycle of tropical trees. Functional Ecology.

9. M. Bruijning, M. D. Visser, H. C. Muller-Landau, S. J. Wright, L. S. Comita, S. In revision

P. Hubbell, H. de Kroon, E. Jongejans. Surviving in a cosexual world: a costbenefit analysis of dioecy in tropical trees. Major revision. American Naturalist. 10. E.J. Francis, H.C. Muller-Landau, S.J. Wright, M. D. Visser, Y. lida, A.R. Kassim, C. Fletcher, and S.P. Hubbell. Re-evaluating the functional significance

of wood density for interspecific variation in growth and survival in tropical trees. Global Ecology and Biogeography

11. M. D. Visser, S. Joseph Wright, Helene C. Muller-Landau, Eelke Jongejans, Liza S. Comita, Hans de Kroon and Stefan Schnitzer. Differential effects of lianas on population growth rates of tropical forest trees. In prep for Ecology

12. M. D. Visser, S. Joseph Wright, Helene C. Muller-Landau, Gemma Rutten In prep and Patrick A. Jansen. Constraints on the performance of a common tropical palm: an integral projection model of density dependence. In preparation for

Ecology Letters. 13. M. D. Visser, Helene C. Muller-Landau, Eelke Jongejans, Liza S. Comita, Hans de Kroon and S. Joseph Wright, Explaining variation among tree species

in liana infestation. In prep for Ecology. 14. M. D. Visser, Helene C. Muller-Landau, Eelke Jongejans, Liza S. Comita,

Hans de Kroon and S. Joseph Wright. The comparative demography of tropical trees. In prep for Ecology.

#### About my research

2015 Salguero-Gómez, R (2015). Demography to infinity and beyond! Journal of

Ecology blog. https://jecologyblog.wordpress.com/2015/04/09/demography-to-

infinity-and-beyond/

Wang, I (2015). Recommendation F1000 prime.

http://f1000.com/prime/725405210

2011 Sugden AM (2011) Science Editors' choice. Ecology. The Enemy of My Enemy

is my? Science 334:569.

Sugden AM (2011) Science Editors' choice. Ecology. Why trees skip a year. Science 333:386 Rees M (2011) Editor's Choice: Volume 99, Issue 4 (July). Journal of Ecology.

King, B (2011), The enemy of my enemy is my friend. Smithsonian Tropical

Research Institute News 1:2 Ecological Society of America - young plant population ecologist of the month (October 2011). Featured work: M. D. Visser et al, 2011, Ecology Letters. **Kouwen M** (2011) Mastjaar overtreft jaarlijkse zaadzetting. Bionieuws 13:6.

#### **Grants and awards**

2016 • Grant: Academy Ecology Fund. Royal Dutch Academy of Sciences (KNAW), Quantifying the effects of extreme years on tropical tree dynamics: capitalizing a rare El Niño occurrence (6k).

> Grant: NWO-ALW, What maintains the diversity of tropical tree species? Unravelling the importance of niche and neutrality with a life cycle approach. Co-wrote with Hans de Kroon, Helene Muller-Landau, Eelke Jongejans, S. J. Wright, P.A. Zuidema, P.A. Jansen and S. Tuljapurkar

(230k).

 Award: WUF-KLV thesis prize for the best thesis in the life sciences from Wageningen University awarded for my MSc thesis: Density-dependent

dispersal and seed predation in a Neotropical palm.

• Grant: Smithsonian Tropical Research Institute, short term fellowship awarded for the study: Quantifying density-dependent responses of seed predators in the Neotropical palm Attalea butyracea. (\$ 5k).

### International presentations

2015 Workshop at the British Ecological Society Annual Meeting. December 2015, Edinburgh. Speeding Up Ecological and Evolutionary Computations in R:

Essentials of High Performance Computing for Biologists. Organizer. Workshop at the Evolutionary Demography Society Annual Meeting. October 2015, Lunteren. Speeding Up Ecological and Evolutionary Computations in R;

Essentials of High Performance Computing for Biologists. Organizer. Speaker at the at the Ecological Society of America Annual Meeting 2015. August 2015, Baltimore. Differential effects of lianas on population growth rates of tropical forest trees.

Workshop at the at the Ecological Society of America Annual Meeting 2015. August 2015, Baltimore. Demography in a Continuous World: New Advances in Integral Projection Models (IPMs). Co-organizer.

**Workshop** at the at the British Ecological Society Symposium "Demography Beyond The Population". March 2015, Sheffield. Speeding Up Ecological and Evolutionary Computations in R; Essentials of High Performance Computing for Biologists.

Speaker at the British Ecological Society Symposium "Demography Beyond The Population". March 2015, Sheffield. Differential effects of lianas on population growth rates of tropical forest trees.

**Short Workshop** at the Yale School of Forestry & Environmental Studies. December 2014, New Haven. Speeding Up Ecological and Evolutionary

> Computations in R; Essentials of High Performance Computing for Biologists. Invited speaker at the conference "Everything disperses to Miami", December 14 - December 16, 2012, the University of Miami. The fitness consequences of dispersal for a tropical palm; the role of dispersers, natural enemies and

negative density dependence. **Invited speaker** at the Max Planck Intitute for Demographic Research,

workshop on Integral Projection Models, Rostock Germany. June 2012. A Blueprint for speeding-up calculations in R.

Speaker at the Netherlands Annual Ecology Meeting. February 2012. Quantifying dispersal kernels through inverse modeling.

Invited speaker at the 5th International Symposium-Workshop on Frugivores and Seed Dispersal. Montpellier, France. June 2010. Measuring dispersal kernels through inverse modeling; density dependence of seed dispersal in a

Speaker at Plant Population Biology: Crossing Borders. Gfo-conference,

Niimegen, Netherlands, May 2010, Strict mast fruiting for a tropical dipterocarp tree: a demographic cost-benefit analysis

**Oral presentation** at the Smithsonian Tropical Research Institute. Panama.

December 2009. Density-dependent dispersal and seed predation in a

Neotropical palm.

**Oral presentation** at the workshop on stochastic elasticity and matrix modeling. 2008

Nijmegen, the Netherlands, June 2008. Strict masting in the tropical tree species Shorea leprosula: demographic consequences and evolutionary benefit

of predator satiation. 2007

Oral presentation at the International workshop in Matrix models of plant populations. Sogndal, Norway, June 2007. Demographic consequences of strict masting for two tropical tree species Shorea leprosula and Shorea parvifolia.

# Reviewer for scientific journals

Biotropica, Canadian Journal of Forest Research, Ecology, Ecology and Evolution, Ecology Letters, Journal of Biogeography, Journal of Ecology, Methods in Ecology and Evolution, PLOS computational biology, The R Journal.

2011

2009

2008

2014

2012:

2010

2009