Marco D. Visser

Postdocorial researcher at Princeton University. Visiting address: 100 Eno Hall Princeton, NJ 08540, United States. mvisser@princeton.edu - marco.d.visser@gmail.com

https://github.com/MarcoDVisser

Research experience

Postdocorial researcher (Nov 2016 - Present) at Department of 2016 Ecology and Evolutionary Biology, Princeton University (USA). PhD candidate (Apr 2011 - Sep 2016) at Institute for Water and 2011 - 2016 Wetland Research, Plant Ecology Group, Radboud University Nijmegen (The Netherlands) (The Netherlands). Predoctoral Fellow (Apr 2010 - Apr 2011) at the Smithsonian Tropical Research Institute, Gamboa (Panama). Junior researcher (Sept 2009 - Feb 2010) at the Department of Experimental Plant Ecology, Radboud University Nijmegen (The Netherlands). 2009 - 2010 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. B.A. Thesis research (2007) at the Forest Research Institute Malaysia, Pasoh Forest Research, Malaysia. Internship (2005) at the Forest Research Institute Malaysia, Kepong, Malaysia. Internship (2004) at the Mammal Research Institute, Polish Academy of Sciences, Bialowieza, Poland. Volunteer (2003) at the Mammal Research Institute, Polish Academy of Sciences, Bialowieza, Poland. 2008-2009 Short-term Fellow (Oct 2008 - Feb 2009) at the Smithsonian Tropical 2007 2005 2004

Education

November, 2016 Radboud University Nijmegen, PhD (cum laude, highest distinction at RU). RU). Wageningen University and research centre, M.Sc. (cum laude, highest distinction at WU). Forestry and Nature Conservation, with a minor in Mathematics and Statistical Methods. Larenstein University of Applied Sciences, B.A. Forestry and Nature Conservation, with specialization in Tropical Forestry. September, 2009 September 2007

Publications (inc. submitted/ in preparation) 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. Distorter-distance models for directional dispersal: a general. 2012 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.r-project.org/web/pack/aps/aps/fpfide/stap.1013 2013 project.org/web/packages/aprof/index.html. 2013. 6. P. A. Jansen, M. D. Visser, S. J. Wright, G. Rutten, H. C. Muller-2014 Landau. Negative density-dependence of seed dispersal and seedling recruitment in a Neotropical palm. Ecology Letters 17: 1111–1120. 2014. 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. 2015 2015.

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. P. Hubbell, H. de Kroon, E. Jongejans. Surviving in a cosexual world: a cost-benefit analysis of dioecy in tropical trees. 189:297-314. American Naturalist.

10. M. Bruijning, Marco D. Visser, C. A. Hallmann, E. Jongejans. trackdem: Particle Tracking and Demography. R package version 0.1. https://cran.pr-project.org/package=trackdem 2017.

11. M. D. Visser, S. Joseph Wright, Helene C. Muller-Landau, Eelke Jongejans, Liza S. Comita, Hans de Kroon and Stefan Schnitzer. Tree species vary widely in their tolerance for liana infestation: A case study of differential host response to generalist parasites. Journal of Ecology. 2016 2017 In review

study of differential host response to generalist parasites. Journal of Ecology.

12. E.J. Francis, H.C. Muller-Landau, S.J. Wright, M. D. Visser, Y. Iida, A.R. Kassim, C. Fletcher, and S.P. Hubbell. Quantifying the role of wood density in explaining interspecific variation in growth of tropical trees. Global Ecology and Biogeography

13. Nadja Rüger, Liza S. Comita, Richard Condit, Drew Purves, Benjamin Rosenbaum, Marco D. Visser, S. Joseph Wright, Christian Wirth. Beyond the fast-slow continuum: A novel trade-off structuring demographic dimensions of tropical trees. Ecology Letters.

14. M. D. Visser, S. Joseph Wright, Helene C. Muller-Landau, Gemma Rutten, and Patrick A. Jansen. What determines population density? An evaluation of regulating and limiting factors for a Neotropical palm species. In preparation for Ecology Letters.

15. M. D. Visser, Helene C. Muller-Landau, Eelke Jongejans, Liza S. Comita, Hans de Kroon and S. Joseph Wright. A host-parasite model explains variation in liana infestation among co-occurring tree explains variation in liana infestation among co-occurring tree explains variation in land measurements of contemps as species. In prep for Ecology.

16. M. Bruijning, M. D. Visser, C. A. Hallmann, E. Jongejans. Automated particle tracking to obtain population counts and six distributions from videos in R. In prep for Methods in Ecology are

17. 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

In prep

2011

Chisholm R. F1000Prime Recommendation of [Visser MD et al., PLoS Comput Biol 2015, 11(3):e1004140]. In F1000Prime, 21 Jul 2016; DOI: 10.3410/f.725405210.793520972. F1000Prime.com/725405210#eval793520972 Salguer-Gómez, R. Demography to infinity and beyond! Journal of

2015 Ecology blog.

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

https://ecologyblog.wordpress.com/2015/04/09/demography-to-infinity-and-beyond/
Wang I. F1000Prime Recommendation of [Visser MD et al., PLoS
Comput Biol 2015, 11(3):e1004140]. In F1000Prime, 28 Jul 2015; DOI:
10.3410/f.725405210.793508140.
F1000Prime.com/725405210#eval793508140
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

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

2011

2009

2008

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

Speaker at the at the Association for Tropical Biology and Conservation Annual Meeting 2016. June 2016, Montpellier, France. Population-level effects of hunting on dispersal, seed predation and population abundance in the Neotropical palm Attalea butyracea. 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. 2015

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.

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). Coorganizer.

World: New Advances in Integral Projection Models (IPMs). Coorganizer.

Workshop at the at the British Ecological Society Symposium
"Demography Beyond The Population". March 2015, Sheffiled.
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 Miamin. 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 Neotropical palm.
Speaker at Plant Population Biology: Crossing Borders. Groconference, Nijmegen, Netherlands. May 2010. Strict mast fruiting for
a tropical dipterocarp tree: a demographic cost-benefit analysis
Oral presentation at the Smithsonian Tropical Research Institute.

2014

2012:

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

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

Reviewer

2010

2009 2008

2007

Scientific Journals: Biotropica, Canadian Journal of Forest Research, Ecology, Ecology and Evolution, Ecology Letters, Ecological Modelling, Journal of Biogeography, Journal of Ecology, Methods in Ecology and Evolution, PLOS computational biology, The R Journal. National Funds for Scientific Research: Research Foundation Flanders (FWO).