



Annemarie van der Marel

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Appointment

IEB Postdoctoral fellow Instituto de Ecología y Biodiversidad, Chile	2025 – 2027
FONDECYT Postdoctoral fellow , Biological Sciences Pontificia Universidad Católica de Chile, Santiago, Chile	2022 – 2025
Postdoctoral fellow , Biological Sciences University of Cincinnati, Cincinnati, OH, USA	2020 – 2022

Education

PhD , Biological Sciences University of Manitoba, Winnipeg, MB, Canada	2014 – 2020
Master of Science , Behavioural Ecology University of Utrecht, Utrecht, The Netherlands	2010 – 2013
Bachelor of Science , Biology University of Utrecht, Utrecht, The Netherlands	2006 – 2010

Refereed publications

- superscripts indicate: ^Uundergraduate mentee, ^Ggraduate mentee*
14. O'Connell CL^G, **van der Marel A**, Hobson EA. Familiarity with social partners influences affiliative interactions but not spatial associations. Accepted *Animal Behavior and Cognition*. Preprint *EcoEvoRxiv* <https://doi.org/10.32942/X2VS56>
 13. Warrington MH, **van der Marel A**, Sojka J, Shofstall KJ, Waterman JM. Staying alive: individual behavioural variation influences survival, but not reproductive success, in female group-living ground squirrels. *Ecology and Evolution* 15(8): e71861. <https://doi.org/10.1002/ece3.71861>
 12. **van der Marel A**, Johnson NE, Grillo S, Riquelme J^G, Vasquez RA, Gillam EH, Ebersperger LA, Hayes LD. 2024. Individual behavioral variation does not affect social organization or reproductive success in a cooperative small mammal. *Behaviour* 161(5):369-397. <https://doi.org/10.1163/1568539X-bja10264> [published dataset: 10.5281/zenodo.8156905]

11. **van der Marel A**, Warrington MH, Waterman JM. 2023. Size is not everything: Nuanced effects of female multiple mating and annual litter number on testes size in terrestrial mammals. *Journal of Zoology* 322(2):101-112. <https://doi.org/10.1111/jzo.13132> [published dataset: 10.5281/zenodo.7853370]
10. **van der Marel A**, Francis X^G, O'Connell CL^G, Estien CO^G, Carminito CE^G, Moore VD, Lormand N, Kluever BM, Hobson EA. 2023. Perturbations highlight importance of social history in parakeet rank dynamics. *Behavioral Ecology* 34(3):457-467. <https://doi.org/10.1093/beheco/arad015> [published dataset: 10.5281/zenodo.7686478]
9. Estien CO^G, O'Connell CL^G, Francis X^G, Smith-Vidaurre G, Kluever BM, Hobson EA, **van der Marel A**. 2022. Temporary behavioral responses to playbacks by a pest parrot and implications for management. *Animal Behavior and Cognition* 9(4):363-384. <https://doi.org/10.26451/abc.09.04.01.2022>
8. **van der Marel A**, O'Connell CL^G, Prasher S^G, Carminito C^G, Francis X^G, Hobson EA. 2022. A comparison of low-cost behavioral observation software applications for handheld computers and recommendations for use. *Ethology* 128(3):275-284. <https://doi.org/10.1111/eth.13251>
7. **van der Marel A**, Waterman JM, López-Darias M. 2021. Barbary ground squirrels do not have a sentinel system but instead synchronise vigilance. *Behavioral Ecology and Sociobiology* 75:153, <https://doi.org/10.1007/s00265-021-03094-1>. [published dataset: 10.5281/zenodo.4694935]
6. **van der Marel A**, Waterman JM, López-Darias M. 2021. Exploring the role of life history traits and introduction effort in understanding invasion success in mammals. *Oecologia* 195:327-339. <https://doi.org/10.1007/s00442-021-04853-7>. [published dataset: 10.5281/zenodo.4136880]
5. **van der Marel A**, Prasher S^G, Carminito C^G, O'Connell C^G, Phillips A, Kluever B, Hobson E. 2020. A framework to evaluate whether to pool or separate behaviors in a multilayer network. *Current Zoology* 67(1):101-111, <https://doi.org/10.1093/cz/zoaa077>. [published dataset: 10.5281/zenodo.4306656]
4. **van der Marel A**, Waterman JM, López-Darias M. 2020. Social organization in a North African ground squirrel. *Journal of Mammalogy* 101(3):670-683. <https://doi.org/10.1093/jmammal/gyaa031>
3. **van der Marel A**, López-Darias M, Waterman JM. 2019. Group-enhanced predator detection and quality of vigilance in a social ground squirrel. *Animal Behaviour* 151:43-52. <https://doi.org/10.1016/j.anbehav.2019.02.017>
2. Piquet JC^G, López-Darias M, **van der Marel A**, Nogales M, Waterman J. 2018. Unraveling behavioral and pace-of-life syndromes in a reduced parasite and predation pressure context: personality and survival of the Barbary ground squirrel. *Behavioural Ecology and Sociobiology* 72:147. <https://doi.org/10.1007/s00265-018-2549-8>
1. Bijleveld AI, Massourakis G, **van der Marel A**, Dekinga A, Spaans B, van Gils JA, Piersma T. 2014. Personality drives physiological adjustments and is not related to survival. *Proceedings of the Royal Society B* 281: 20133135. <https://doi.org/10.1098/rspb.2013.3135>

Publications in progress/submitted/in review/in revision

superscripts indicate: ^Uundergraduate mentee, ^Ggraduate mentee

van der Marel A, Oli MK, Hossain A, Krishnan P, Wilson T, Correa L, Ebensperger LA, Hayes LD. Decade-long drought impacts drive local extinction in a social rodent. Submitted to *Ecology*. Preprint *EcoEvoRxiv* <https://doi.org/10.32942/X2B649> [published dataset: 10.5281/zenodo.15012326]

van der Marel A, Francis X^G, O'Connell CL^G, Estien CO^G, Carminito CE^G, VD Moore^G, Hobson EA. Perturbations of key individuals trigger shifts in group-level dominance patterns. Submitted to *Current Biology*. Preprint *EcoEvoRxiv* <https://doi.org/10.32942/osf.io/9qyb2>

Kratzer KV^U, **van der Marel A**, Garroway C, López-Darias M, Petersen SD, Waterman JM. The genetic structure and founding effects of an invasive ground squirrel population. Preprint *bioRxiv* <https://doi.org/10.1101/2020.08.04.236695>

Non-refereed publications

van der Marel A, López-Darias M, Waterman J. 2016. The social and anti-predator behavior of the Barbary ground squirrel (*Atlantoxerus getulus*), an invasive species of ground squirrel on Fuerteventura. Field report for the Government of Fuerteventura, Canary Islands, Spain.

van der Marel A, López-Darias M, Waterman J. 2015. The social behaviour, reproductive biology and possible management methods of the Barbary ground squirrel (*Atlantoxerus getulus*), an invasive species of ground squirrel on Fuerteventura. Field report for the Government of Fuerteventura, Canary Islands, Spain.

van der Marel A, López-Darias M, Waterman J. 2014. The social behaviour of the Barbary ground squirrel (*Atlantoxerus getulus*), an invasive species of ground squirrel on Fuerteventura. Field report for the Government of Fuerteventura, Canary Islands, Spain.

Verwer, C., G. Smolders, L.P.L. van de Vijver, N.J.M. van Eekeren, A.J.T.M. Hospers-Brands and **A. van der Marel**. 2013. Antibiotica in grond en water: Via plant weer in mens en dier (*Antibiotics in soil and water: Via plants back to human and animal*). *V-focus*. February 2013, p. 34-35.

Awards and scholarships

Grants

4th Postdoctoral Grant Competition – Institute of Ecology and Biodiversity	2025
- Role: Principal Investigator	
- Title: “The socioeconomic impact, distribution, and genetic structure of the non-native bird community in Chile”	
NSF IRES (National Science Foundation – International Research Experiences for Students)	2024
- Role: Senior Personnel	
FONDECYT (Chilean National Postdoctoral grant) (USD100.000)	2022
- Role: Principal Investigator	
- Title: “An examination of the role played by key individuals in driving social instability in a cooperative small mammal”	

Canary Islands Government to Island Conservation 2016
 - Pilot study: "Inhibition of fertility in the Barbary ground squirrel as a tool to control the invasive population on Fuerteventura"
 Faculty of Science graduate award (CAD7000), University of Manitoba 2014

Teaching awards

Josephine C. Rauch Memorial Prize, University of Manitoba 2018

Presentation awards

Cas Lindsey Prize, Integrative Ecology and Evolution Section of Canadian Society of Zoology 2017
 Biological Sciences Graduate Student Association, University of Manitoba 2018

Competitive travel awards

Animal Behavior Society Travel Award 2019
 Biological Sciences & Faculty of Science Travel Grant, University of Manitoba 2015 - 2019
 ISBE (International Society for Behavioural Ecology) Travel Award 2018, 2024
 Faculty of Graduate Studies Travel Grant, University of Manitoba 2017, 2018
 Graduate Student Association Travel Grant, University of Manitoba 2014

Invited seminars

Frontiers in Social Evolution (FINE) Seminar (online: [link to talk](#)) 2023

Conference seminar: Social Competency Symposium 2022
 Animal Behavior Society (ABS) Conference, Costa Rica

Departmental Seminar: Department of Biology, University of Cincinnati, Cincinnati, OH, USA 2020

Departmental Seminar: Crackerjack Seminar 2018
 Department of Biological Sciences, University of Manitoba, Winnipeg, MB, Canada [[Biological Sciences Graduate Student Association \(BSGSA\) presentation award](#)]

Departmental Seminar: NIOZ Royal Netherlands Institute for Sea Research, Texel, The Netherlands 2011

Scientific presentations

superscripts indicate: ^Uundergraduate mentee, ^Ggraduate mentee

26. **van der Marel A**, Hayes LD, Ebensperger LA. *Animal Behaviour Live*. Virtual meeting November 2024. Oral presentation.
25. **van der Marel A**, Hayes LD, Ebensperger LA. The 19th congress of the International Society of Behavioural Ecology. September 2024, Melbourne, Australia. Oral presentation.
24. **van der Marel A**, Hobson E. The 18th congress of the International Society of Behavioural Ecology. August 2022, Stockholm, Sweden. Oral presentation.
23. O'Connell C^G, **van der Marel A**, Hobson E. *The 59th Annual Conference of the Animal Behavior Society*. July 2022, San Jose, Costa Rica. Oral presentation.
22. Francis X^G, **van der Marel A**, Hobson E. *The 59th Annual Conference of the Animal Behavior Society*. July 2022, San Jose, Costa Rica. Oral presentation.

21. Carminito C^G, **van der Marel A**, Hobson E. *The 59th Annual Conference of the Animal Behavior Society*. July 2022, San Jose, Costa Rica. Oral presentation.
20. Estien C^G, **van der Marel A**, Hobson E. *The 59th Annual Conference of the Animal Behavior Society*. July 2022, San Jose, Costa Rica. Oral presentation.
19. Moore VD, **van der Marel A**, Hobson E. *The 59th Annual Conference of the Animal Behavior Society*. July 2022, San Jose, Costa Rica. Poster presentation.
18. **van der Marel A**, Hobson E. *The 58th Annual Conference of the Animal Behavior Society*. Virtual meeting August 2021. Oral presentation.
17. O'Connell C^G, **van der Marel A**, Prasher S^G, Carminito C^G, Francis X^G, Hobson E. *The 58th Annual Conference of the Animal Behavior Society*. Virtual meeting August 2021. Oral presentation.
16. **van der Marel A**, Prasher S^G, Carminito C^G, O'Connell C^G, Phillips A, Kluever B, Hobson E. *Global Animal Behavior Twitter Conference*. January 2021
14. **van der Marel A**, Prasher S^G, Carminito C^G, O'Connell C^G, Phillips A, Kluever B, Hobson E. *Animal Behaviour Live*. Virtual meeting August 2020. [[Link to online talk](#)]
15. **van der Marel A**, Waterman J, Lopez-Darias M. *The 57th Annual Conference of the Animal Behavior Society*. Virtual meeting July 2020. Oral presentation.
13. **van der Marel A**, Waterman J, Lopez-Darias M. *A joint meeting of the 56th Annual Conference of the Animal Behavior Society and the 36th International Ethological Conference*. July 2019, Chicago, IL, US.
12. **van der Marel A**, Waterman J, Lopez-Darias M. *Darwin Day Symposium*, University of Manitoba. February 2019, Winnipeg, MB, Canada. Oral presentation.
11. Kratzer K^U, **van der Marel A**, Garroway C, Lopez-Darias M, Petersen S, Waterman J. University of Manitoba Undergraduate Poster Symposium. November 2018, Winnipeg, MB, Canada. Poster presentation. [Award: best poster presentation]
10. Piquet J^G, López-Darias M, **van der Marel A**, Craig Z, Waterman J. *Neobiota 2018, 10th International Conference on Biological Invasions: New Directions in Invasion Biology*. September 2018, Dun Laoghaire, Dublin, Ireland. Poster presentation.
9. **van der Marel A**, López-Darias M, Waterman J. *The 17th congress of the International Society of Behavioural Ecology*. August 2018, Minneapolis, MN, USA. Oral presentation.
8. **van der Marel A**. *The Wildlife Society Manitoba Chapter Winter Getaway*. February 2018, Riding Mountain National Park, MB, Canada. Oral presentation.
7. Kratzer K^U, **van der Marel A**, Lopez-Darias M, Waterman J. *University of Manitoba Undergraduate Poster Symposium*. November 2017, Winnipeg, MB, Canada. Poster presentation.
6. **van der Marel A**, López-Darias M, Waterman J. *The 54th Annual Conference of the Animal Behavior Society*. June 2017, Toronto, Canada. Oral presentation.
5. **van der Marel A**, López-Darias M, Waterman J. *The 56th annual meeting of the Canadian Society of Zoologist*. May 2017, Winnipeg, Canada. Oral presentation. [Cas Lindsey Prize, Integrative Ecology and Evolution Section (presentation award)]
4. **van der Marel A**, López-Darias M, Waterman J. *The 16th congress of the International Society of Behavioural Ecology*. July 2016, Exeter, United Kingdom. Poster presentation.
3. **van der Marel A**, López-Darias M, Waterman J. *The Wildlife Society Conference*. October 2015, Winnipeg, Canada. Poster presentation.
2. **van der Marel A**, López-Darias M, Waterman J. *The 14th Rodens et Spatium*, International Conference on Rodent Biology. July 2014, Lisbon, Portugal. Oral presentation.

1. **van der Marel A**, Duchateau MJ, Dobson S. *The international conference on Individual differences*. November 2013, Groningen, The Netherlands. Poster presentation.

Teaching experience

Instructor of record

Study Design and Quantitative Methods for Resource and Environmental Management Winter 2020
Natural Resource Institute, University of Manitoba, Winnipeg, Canada

- Co-instructor (18 graduate students)
- Responsible for teaching data manipulation and different statistical analyses in R

Biology of Mammals (Biology 4218: 4th-year course) Fall 2019
University of Manitoba, Winnipeg, Canada

- Taught course on mammalian taxonomy and life history (18 students)
- Marked and revised assignments, made exam questions

Biological Diversity and Interactions (Biology 1010: 1st-year course) Winter 2018
University of Manitoba, Winnipeg, Canada

- Developed and taught introductory course for the Aboriginal Nursing Cohort Initiative (ANCI)
- Small class instructions (10 students)

Sessional instructor

Biological Diversity and Interactions (Biology 1010: 1st-year course) Summer 2018 & 2019
University of Manitoba, Winnipeg, Canada

- Developed and taught introductory course (approximately 40 nonmajor students)

Biological Diversity and Interactions (Biology 1030: 1st-year course) Summer 2018 & 2019
University of Manitoba, Winnipeg, Canada

- Developed and taught introductory course (approximately 100 major students)

Teaching assistant

University of Manitoba, Winnipeg, MB, Canada

- Behavioural Ecology & Cognitive Ethology (Biology 4362: 4th-year course) Winter 2019
- Chordates (Biology 2210: 2nd-year course) Winter 2019
- Animal Behavior (Biology 3360: 3rd-year course) Fall 2017
- Biology of Mammals (Biology 4218: 4th-year course) Fall 2015

Guest lectures

Department of Biological Sciences, University of North Texas, Texas, USA

- Course *Behavioral Ecology* Fall 2023 & 2024

College of Environmental Science and Forestry, State University of New York, NY, USA

- Course *Animal Behavior* Fall 2022

National Resources Institute, University of Manitoba, Winnipeg, MB, Canada

- Course *Ecological Conservation and Management* Winter 2018 & 2019

Department of Biological Sciences, University of Manitoba, Winnipeg, MB, Canada

- Course *BIOL3600: Biological Diversity and Sustainability*
- Course *BIOL3300: Evolutionary Biology*

Winter 2018
Fall 2017

Mentoring activities

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Training of students in behavioral observation methods and data collection in the field and the lab

- 2023: Mariana González Reyes^U (Pontificia Universidad Católica de Chile)
- 2020 – 2022: Alexa Phillips, Nickolas Lormand, and Darby Moore (field techs); Claire O’Connell^G, Chelsea Carminito^G, and Xavier Francis^G (University of Cincinnati); Cesar Estien (post-bachelor field project)
- 2014 – 2016: Elise Koole^G (University of Utrecht), Julien Piquet^G (IPNA-CSIC), Megan Miraglia and Kat Kratzer^U (University of Manitoba), Chris Anderson (field tech)

Peer-mentoring: Weaving the Future of Animal Behavior (WFAB)

2021 – ongoing

Animal Behavior Collective mentor

2021 – ongoing

- Mentee: Rachel Lee (2021)

Hobson Lab Penguin Data Club, University of Cincinnati, Ohio, USA

2020

- Training of undergraduate students in data analysis in R

Teaching DNA extraction and DNA amplification methods

2017

- Mentees: Rebecca Lem^G, Philip Shimel^G (University of Manitoba)

International Student-Led Arctic Monitoring and Research (ISAMR) program mentor

2016

- Training of high school students in scientific methods to promote STEM fields by observing polar bear play behavior and polar bear identification for the Polar Bear Whisker Print project

Research experience

Postdoc field work: Effect of key individuals on social stability in degus

2023 – 2024

Fundo “El Roble”, Rinconada de Maipú, Chile

Postdoc field work: Group structure in monk parakeets

2020 – 2022

USDA-NWRC Florida Field Station, USA

Polar Bear Whisker Print Project

2016

Churchill Northern Studies Centre, Churchill, MB, Canada

PhD field work: Social system of Barbary ground squirrels

2014 – 2016

Fuerteventura, Canary Islands, Spain

Master thesis: Literature review titled “The cycle of veterinary antibiotics in the ecosystem”

2013

Louis Bolk Institute, Driebergen, The Netherlands

Minor research project: Personality and space use in Columbian ground squirrels

2012 – 2013

R.B. Miller Biological Station, Alberta, Canada

Volunteer field assistant: Pilot study of gaze-following in white-tailed deer and mule deer 2012
McCantyre Ranch, southern Alberta, Canada.

Major research project: Personality in the red knot 2010 – 2011
Marine ecology, NIOZ Royal Netherlands Institute for Sea Research, The Netherlands

Service

Grant proposal referee

United States Army Research Office 2022

Review editor

Frontiers in Ecology and Evolution - Behavioral and Evolutionary Ecology 2023

Journal referee

Acta Ethologica, **Animal Behaviour**, Animal Cognition, **Behavioral Ecology**, **Behavioral Ecology and Sociobiology**, Behavioural Processes, Biology, Birds, Canadian Wildlife Biology & Management, Current Opinion in Behavioral Sciences, Current Zoology, Ethology, Integrative Zoology, **Journal of Animal Ecology**, Journal of Ethology, **Nature Ecology & Evolution**, Mammalia, Mammalian biology, Peer Community in Ecology (PCI Ecology), **Philosophical Transactions B**, PLOS Computational Biology, PLOS One, **Royal Society Proceedings B**, **Royal Society Open Science**, Scientific Reports

Search committee member, University of Manitoba, Winnipeg, Canada 2017

- Graduate student representative in the search committee for an indigenous assistant professor in Biological Sciences

Professional development, research, and skills training

Workshop participant

- “Science impact on public policies” workshop, Instituto de Ecología y Biodiversidad 2025
- “Bayes Plurinacional”, South American workshop on Bayesian Statistics 2024
- “Weaving the Future of Animal Behavior (WFAB)” symposium, virtual professional development workshop at the 58th annual meeting of Animal Behavior Society 2021
- “Complex Networks Winter Program”, virtual social network workshop 2021

Training

- Occupational Health & Safety Program for Animal Handlers (University of Cincinnati) 2020
- Workplace Hazardous Materials Information Safety Training (University of Manitoba) 2014

Press & Outreach

Outreach talk “The design of behavioral ecology studies in wild and captive birds” 2025
CEA Centro de estudios Agrarios y Ambientales, Valdivia, Chile [virtual talk]

- I will offer insights into behavioural ecology studies and explain why studying animal behaviour is important in animal conservation.

University of Cincinnati by Michael Miller. “These birds vacation at their peril: Gregarious monk parakeets lose social standing during an absence.” [UC news](#), April 2023

University of Cincinnati by Michael Miller. "Barbary ground squirrels look for predators together as a survival strategy." [UC News](#) and [Phys.org](#), October 2021

- Forbes "[Community: How To Bond With Your People Based On Some Unexpected Science](#)" by Tracy Brower
- Earth.com, "[Barbary ground squirrels find safety in numbers](#)" by Andrei Ionescu
- Billings Gazette, "[Ground squirrels use neighborhood watch to stay safe](#)" by Brett French

University of Cincinnati by Michael Miller. "When push comes to shove, what counts as a fight? - Biologists come up with new way to decide whether to lump together similar animal behaviors." [UC News](#), 25 January 2021 and [ScienceDaily](#), 26 January 2021

Interviewed for the 4th-year course Biology & Society, University of Manitoba, Canada 2019

Expert instructor for the "Lord of the Arctic" learning vacation programs 2016
Churchill Northern Studies Centre, Churchill, MB, Canada

- I offered insights and observations during each outing to observe polar bears, and presented engaging polar bear lectures, providing a deep understanding of this iconic species and the challenges it faces to the public.

Professional affiliations and service

Animal Behavior Society (ABS)	2016 - 2023
Canadian Society for Zoologists (CSZ) - <i>Volunteer at conference</i>	2017
International Society for Behavioural Ecology (ISBE)	2016 - 2026
The Wildlife Society (TWS) - <i>Volunteer at conference</i>	2015

Languages

Native language: Dutch

Language	Listening	Reading	Spoken interaction	Spoken production	Writing
English	C2	C2	C2	C2	C2
French	A2	B1	A2	A2	A2
Spanish	B2	B2	B1	B1	B2
German	A2	B1	A1	A1	A1

(<http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr/cef-ell-document.pdf>)
