

Curriculum Vitae

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“Nothing is as practical as good theory”

Kurt Lewin

RESEARCH INTERESTS

AREAS OF FOCUS

Behavior ecology and population dynamics of wildlife in a spatial context:

- behavioral ecology
- movement ecology
- landscape ecology

“Nothing is as practical as good theory” Kurt Lewin

RESEARCH PROFILE

My research focuses mainly on the topic of movement and habitat selection by large herbivores. Habitat selection occurs at different spatio-temporal scales, the relationship between selection at those scales is of particular interest to me. During my thesis work, I have focused on the individual consequences of habitat selection (i.e. consequences for fitness components, like survival). In my current work I focus on both the drivers (i.e. spatio-temporal variation in the environment) and the mechanisms of animal movement at different spatial scales. The link between individual habitat selection and the population level (i.e. population dynamics) or the community level (i.e. competition linked with niche and habitat differentiation) are elements for future interest.

EDUCATION

2005 – 2008 PhD in Biology, University Claude Bernard Lyon 1, Lyon (France)

Title: Habitat selection at different spatial scales: Application to roe deer

Supervised by: dr. Jean-Michel Gaillard (University Claude Bernard Lyon 1) &
dr. Mark S. Boyce (University of Alberta, Edmonton)

2003 – 2005 Master in Biology, Leiden University, Leiden (the Netherlands)

Specialization: Evolutionary and Ecological Sciences (EES)

- Training: “Analysis of capture-recapture data from Tiger Beetle larvae” supervised by dr. Tom Van Dooren
- Training: “Dispersal by roe deer (*Capreolus capreolus*)” supervised by dr. Jean-Michel Gaillard

1998 – 2001 Master in Psychology, University of Leuven, Leuven (Belgium)

Specialization: psychological research in social psychology and bio-psychology

1996 – 1998 Bachelor in Psychology, University of Leuven, Leuven

PROFESSIONAL EXPERIENCE

2008 – present Post-doctoral researcher at the Center for Conservation Biology (Trondheim, Norway), mentored by B-E. Saether.

2005 – present PhD-research at the Evolutionary Ecology of Populations Group and Boyce Lab. Supervised by dr. Jean-Michel Gaillard (Lyon) and Mark S. Boyce (Edmonton,

Canada)

- Research: Ungulate habitat use at different spatial scales
- Nine months of this thesis work were spend in Boyce's lab (Edmonton)

2001 – 2003 Research assistant at the Center for the Psychology of Learning and Behavioral Therapy at the Univeristy of Leuven, Leuven. prof. dr. Paul Eelen

- Research:

“Human observational learning in food choice”

“Cheater detection in real groups. How well are we tuned when uncertainty is increased?” with dr. Sigfried Dewitte and Bram Van Den Berghe

- Teaching:

practice courses for undergraduate statistics

GRANTS, SCHOLARSHIPS, AND FELLOWSHIPS

- Post-doctoral fellowship from the Norwegian Research Council’s PredClim project to B-E. Saether
- Research fellowship from the French Ministry of Research (“Lynx (*Lynx lynx*) predation on roe deer (*Capreolus capreolus*) in a human dominated landscape”)
- Grant from the Rhône-Alpes county (France) to support the scientific cooperation between France and Canada
- Leonardo da Vinci mobility grant between the Netherlands and France
- Research assistant scholarship from the Univeristy of Leuven, for research and teaching

OTHER PROFESSIONAL ACTIVITIES

Referee for: Ecology, Journal of Animal Ecology, Oecologia, Basic and Applied Ecology, and Wildlife Biology

2009 Invited lecture on “Animal Space Use” for Phd-course on Biotelemetric Methods (AB-325) organized by dr. Kit M. Kovacs

2005 – 2008 Regular presentations of ongoing research for the GROS (Groupe de Recherche Ongulés Sauvage) and GRhAS (Groupe de Recherche hAbitat Selection)

2007 Lecture of a Mechanistic Home Range Model in prof. dr. John Fryxell's lab

PUBLICATIONS

PEER-REVIEWED ARTICLES

- Bjorneraas K., Solberg E.J., Herfindal I., **Van Moorter B.**, Rolandsen C.M., Tremblay J.P., Skarpe C., Saether B.E., Eriksen R., and Astrup R. (2011) Moose Alces alces habitat use at multiple temporal scales in a human-altered landscape. *Wildlife Biology* 17: 44-54.
- Bunnefeld N., Borger L., **van Moorter B.**, Rolandsen C.M., Dettki H., Solberg E.J., and Ericsson G. (2011) A model-driven approach to quantify migration patterns: individual, regional and yearly differences. *Journal of Animal Ecology* 80: 466-476.
- Struve J., Lorenzen K., Blanchard J., Borger L., Bunnefeld N., Edwards C., Hortal J., MacCall A., Matthiopoulos J., **Van Moorter B.**, Ozgul A., Royer F., Singh N., Yesson C., and Bernard R. (2010) Lost in space? Searching for directions in the spatial modelling of individuals, populations and species ranges. *Biology Letters* 6: 575-578.
- Martin J. Basille M., **van Moorter B.**, Kindberg J., Allaine D., Swenson J.E. (2010) Coping with human disturbance: spatial and temporal tactics of the brown bear (*Ursus arctos*). *Canadian Journal of Zoology - Revue Canadienne de Zoologie* 88: 875-883.
- Bjorneraas K., **van Moorter B.**, Rolandsen C.M., and Herfindal I. (2010) Screening GPS Location Data for Errors using Animal Movement Characteristics. *Journal of Wildlife Management* 74: 1361-1366.
- Gaillard J.-M., Hebblewhite M., Loison A., Fuller M., Powell R., Basille M., and **Van Moorter B.** (2010) Habitat-performance relationships: finding the right metric at a given spatial scale. *Royal Society Philosophical Transactions B*. 365: 2255-2265.
- Van Moorter B.**, Jerde C.J., Visscher D.R., Frair J.L., and Merrill E.H. (2010) Identifying movement states from location data using cluster analysis. *Journal of Wildlife Management* 74: 588-594.
- Van Moorter B.**, Visscher D., Benhamou S., Börger L., Boyce M.S., and Gaillard J.-M. (2009) Memory keeps you at home: a mechanistic model for home range emergence. *Oikos* 118: 641-652.
- Van Moorter B.**, Gaillard J.-M., McLoughlin P.D.M., Delorme D., Klein F., and Boyce M.S. (2009) Maternal and individual effects in selection of bed sites and their consequences for fawn survival at different spatial scales. *Oecologia* 159: 669-678.
- Bourgoin G., Garel M., **Van Moorter B.**, Dubray D., Maillard D. Marty E., and Gaillard J.-M. (2008) Determinants of seasonal variation in activity patterns of mouflon. *Canadian Journal of Zoology* 86: 1410-1418.
- Gaillard J.-M., Hewison A.J.M., Kjellander P., Pettorelli N., Bonenfant C., **Van Moorter B.**,

Liberg O., Andren H., Van Laere G., Klein F., Angibault J.-M., Coulon A., and Vanpé C. (2008) Population density and sex do not influence fine-scale natal dispersal in roe deer. *Proceedings of the Royal Society B* 275 (1646): 2025–2030.

Van Moorter B., Gaillard J.-M., Hewison A.J.M., Said S., Coulon A., Delorme D., Widmer O., Cargnelutti B., and Angibault J.M. (2008) Evidence for exploration behaviour in young roe deer (*Capreolus capreolus*) prior to dispersal. *Ethology, Ecology & Evolution* 20: 1-15.

McLoughlin P.D.M., Gaillard J.-M., Boyce M.S., Bonenfant C., Messier F., Duncan P., Delorme D., **Van Moorter B.**, Said S., and Klein F. (2007) Lifetime reproductive success and composition of the home range in a large herbivore. *Ecology* 88: 3192–3201.

Steenbeek H., van Geert P., and **van Moorter B.** (2003). Een dynamisch-systeemmodel van interactie tijdens spel van twee kinderen [a dynamic-system model for the interaction during play of two children]. *Nederlands Tijdschrift voor Psychologie [Dutch Journal for Psychology]* 58: 141-157.

UNDER REVIEW

Van Moorter B., Visscher D., Herfindal I., Basille M., and Mysterud A. (submitted) Inferring behavioural mechanisms in habitat selection studies - getting the null-hypothesis right for functional and familiarity responses.

BOOK CHAPTERS

Martin J., Tolon V., **Van Moorter B.**, Basille M., Calenge C. (2009) On the use of telemetry in habitat selection studies. In: "Telemetry: Research, Technology and Applications". Editors Barculo D & Daniels J, Nova Science Publishers Inc.

NON-REFEREED REPORTS, THESES, AND POSTERS

Van Moorter B. (2009) Biological versus statistical significance. Poster at Populations Under Pressure (PuP09) symposium in London.

Van Moorter B. (2008) Habitat selection at different spatial scales: Application to roe deer. Phd-thesis

Van Moorter B. (2005) Dispersal by roe deer (*Capreolus capreolus*). MSc-thesis

Van Moorter B. (2004) Analysis of capture-recapture data from Tiger Beetle larvae. MSc-project

Van Moorter B. (2001) Vrouwelijke partner keuze (een evolutionaire benadering) [Female mate choice in humans (an evolutionary approach)]. MSc-thesis

Van Moorter B. (2001) . Een dynamisch-systeemmodel van interactie tijdens spel van twee kinderen [a dynamic-systems model of dyadic interaction during play of two children].

MSc-project

SKILLS

LANGUAGES

- English (good)
- Dutch (native speaker)
- French (good comprehension and moderately good verbal expression).

COMPUTER

- General software
 - MS Office and Open Office (word processor, spreadsheet, presentations)
 - Emacs (text editor for e.g. LaTeX)
- Programming languages: C, and Visual Basic
- Statistical software: R-project, SPSS (fading knowledge) and SAS (fading knowledge)
- Capture-recapture software: Mark and M-Surge (both fading knowledge)
- Geographic Information Systems: GRASS, ArcView 3.2 and ArcMap

MISCELLANEOUS

- Driver's license
- Wilderness survival training (basic and sub-arctic course)
- Moderate physical condition (cycling, running, hiking, kayaking/canoeing, fishing)
- Culinary training: level "hulpkok" [assistant cook]