

University of Groningen

Local adaptation or dispersal? How pied flycatchers cope with climate change

Burger, Claudia

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2014

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Burger, C. (2014). *Local adaptation or dispersal? How pied flycatchers cope with climate change*. [Thesis fully internal (DIV), University of Groningen]. s.n.

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Acknowledgements

Many people contributed to the making of this thesis in various ways.

First, I want to thank my supervisor, Christiaan Both. Thank you for giving me the opportunity to do such an interesting and manifold project! I really enjoyed all the discussions we had about flycatchers and how the system is working. When I was stuck with my ideas, it was always inspiring to have a chat, and your enthusiasm kept me going. Also, thanks that I could join the first expedition to Ghana to find flycatchers in their wintering area. It was great to see what those birds are doing during winter time! I wish you and your family all the best, and success with your research, I'm sure this will result in many exciting new insights! I also want to thank Joost Tinbergen, my second promotor. Although we only talked irregularly, you were always very supportive and interested in my work, and your input often helped me viewing my work from a somewhat different angle and made think about the logic of some ideas.

Fieldwork in Drenthe was a big team effort. First, I want to thank Rob Bijlsma who made a huge contribution to the data collection by running half of the study sites by himself, including time-consuming experiments. I also enjoyed the visits to your house to discuss about experimental design and the many other things that you are working on. Hope you can continue your studies on raptors, wasps, wood warblers and more, for many more years! Many master and course students joined the fieldwork-team through the years, and they did a great job in collecting important data and making the fieldwork-time enjoyable. Thanks to Saskia, Wouter, Aagje, Froukje, Marinka, Annis, Mirjam, Niki, Carmen, Elena, Anne, and everybody who joined fieldwork as well. Many thanks to Janne, my flycatcher-PhD-colleague, who not just collected loads of data in the field but also contributed to this thesis through the many discussions we had, when trying to make sense of the complicated patterns in the data, or just by sharing the struggles with R and other things. Good luck with finishing up your project and thank you for being my paranimf and helping me with defending my thesis! Good luck also to Jelmer, with your recently started PhD-project on the flycatchers.

I also want to thank my international colleagues: In Finland, Toni Laaksonen, Päivi Sirkiä and Elina Mäntylä from University of Turku enabled me to work in their study area. Thanks for your help and scientific input! Our trip to Kilpisjärvi and Skibotn, to study one of the most Northern breeding populations of pied flycatchers, was fun! The translocation experiment to Sweden would also not have been possible without the help of many people. In Sweden, thanks to our collaborators Jan-Åke Nilsson and Andreas Nord from University of Lund. It was great that we could do this experiment in your study site. Andreas, besides the scientific input, thanks also for arranging all the practical things: our stay at the fieldstation, putting up extra nestboxes and arranging the permits. In The Netherlands, thanks to Hannah, Janske, Richard, Aagje and Arne who provided extra help with bird catching. Special thanks goes to Martijn S, who provided invaluable help with the fieldwork in Sweden and The Netherlands, like building up all those aviaries in the forest, and also with driving the 800 km from

Groningen to Sweden, at night, and with a van full of birds. I'm glad everything worked out well! I also want to thank all other collaborators, especially for providing all the nestling diet data, which resulted in a very nice paper!

Thanks to my reading committee, Irene Tieleman, Bart Kempenaers and Erik Matthysen, for reading and judging my thesis! I'm also very grateful to Dick Visser for making the lay-out of my thesis! And thanks to Roef Mulder for taking some great pictures of the flycatchers.

I want to thank many people for their help, company and friendship during my years as a PhD student. I really enjoyed the leisure activities like horse riding with Marion, Roos, Kirsten and Chris, climbing sessions, many nice dinners, and the Dutch book-evenings with Maaïke, Tim, Kevin and Isabella. Maaïke, thanks a lot for helping me with my 'samenvatting', for organizing the important coffee-making and for being such a kind person! I'm very happy that you also agreed to be my paranimf! Tim, thank you very much for helping with some last-minute proof-reading! Nick, it was a pleasure to be your paranimf, and I hope to see you, Sarah and Thomas (again) soon! Thanks also to Julia, Martin, Saleta and Fran that I could stay at your house in the beginning, and thanks to everybody who helped with moving! Thanks also to all other (current and former) members of the Animal Ecology Group and BESO for nice social activities, birdwatching trips, borrels, parties, coffee breaks and scientific discussions: Stephi and Martin, Janske, Reinder, Valentijn and Katie, Yvonne, Jesse, Eelke, Allert, Tamar, Hacen, Merlijn, Kobus, Carlos, Pedro, Sander, Raymond, Rienk, Els, Elske, Popko, Almut, Berber, Hannah, Margarete, Martijn H, Marco, Marta, Lucie, Henry, Peter, Pieter, Richard, Sjouke, Frank, Jeroen R, Jeroen O, Oscar, Seyed Mehdi, Minke, Maurine, Jos, Theunis, Petra, and anyone I forgot to name. And thanks to Joyce for organizing the yearly kerstborrel and for your help with administrative things.

It was always nice to visit my old home in Germany and to see family and friends! Thank you for the good times there, enjoying summer in some Munich beer-garden, bbqing, or going hiking or skiing in the mountains. Julia, Linda, Maury, Rachel und Mama, ich freue mich, dass Ihr bei meiner Verteidigung dabei seid! Danke für alles!

Addresses of Co-authors

Eugen Belskii: Institute for Plant & Animal Ecology, Russian Academy of Science, Ekaterinburg 620144, Russia

Christiaan Both: Animal Ecology Group, Centre for Ecological and Evolutionary Studies, University of Groningen, PO Box 11103, 9700 CC Groningen, The Netherlands

Tapio Eeva: Section of Ecology, FI-20014 University of Turku, Finland

Emmanuelle Gilot-Fromont: VetAgro Sup, Campus Vétérinaire de Lyon, Santé Publique Vétérinaire, Université de Lyon, 69280, Marcy l'Etoile, France; Université de Lyon, Université Lyon 1, UMR5558 Laboratoire de Biométrie et Biologie Evolutive, 43 Bd du 11 novembre 1918, 69622, Villeurbanne Cedex, France

Toni Laaksonen: Finnish Museum of Natural History, PO Box 17, FI-00014 University of Helsinki, Finland; Section of Ecology, FI-20014 University of Turku, Finland

Marko Mägi: Institute for Ecology & Earth Sciences, University of Tartu, Department of Zoology, EE-51014 Tartu, Estonia

Raivo Mänd: Institute for Ecology & Earth Sciences, University of Tartu, Department of Zoology, EE-51014 Tartu, Estonia

Jan-Åke Nilsson: Department of Biology, Section for Evolutionary Ecology, Lund University, SE-223 62 Lund, Sweden

Andreas Nord: Department of Biology, Section for Evolutionary Ecology, Lund University, SE-223 62 Lund, Sweden

Janne Ouwehand: Animal Ecology Group, Centre for Ecological and Evolutionary Studies, University of Groningen, PO Box 11103, 9700 CC Groningen, The Netherlands

Anna Qvarnström: Evolutionary Biology Center, Department of Animal Ecology, Norbyvägen 18D, SE-752 36 Uppsala, Sweden

Tore Slagsvold: Department of Biology, CEES, University of Oslo, N-0316 Oslo, Norway

Thor Veen: Centre for Ecology & Conservation, College of Life and Environmental Sciences, University of Exeter, Cornwall Campus, Penryn, TR10 9EZ, UK; Biodiversity Research Centre, University of British Columbia, Vancouver, BC, V6T 1Z4, Canada

Marcel E. Visser: Netherlands Institute of Ecology (NIOO-KNAW), PO Box 50, 6700 AB Wageningen, The Netherlands

Karen L. Wiebe: Department of Biology, University of Saskatchewan, 112 Science Place, Saskatoon, SK, S7N 5E2, Canada

Chris Wiley: Department of Neurobiology & Behavior, Cornell University, Ithaca, NY 14853, USA

Jon Wright: Department of Biology, Norwegian University of Science & Technology (NTNU), Trondheim, Norway

