

## PUBLICATION LIST THOMAS MUELLER

### Peer-reviewed journal articles and book chapters:

32. Fleming C. H., W. F. Fagan, T. Mueller, K. A. Olson, P. Leimgruber, and J. M. Calabrese. 2016. Estimating where and how animals travel: An optimal framework for path reconstruction from autocorrelated tracking data. *Ecology*, 97, 576–582.
31. Teitelbaum C.S., W.F. Fagan, C.H. Fleming, G. Dressler, J.M. Calabrese, P. Leimgruber, and **T. Mueller**. 2015. How far to go? Determinants of migration distance in land mammals. *Ecology Letters*, 18, 545–552.
30. Fleming C.H., W.F. Fagan, **T. Mueller**, K.A. Olson, P. Leimgruber, and J. M Calabrese. 2015. Rigorous home-range estimation with movement data: A new autocorrelated kernel-density estimator. *Ecology*, 96, 1182–1188.
29. Neuschulz E., **T. Mueller**, Thomas; K. Bollmann, F. Gugerli, and K. Böhning-Gaese. 2015. Seed perishability determines the caching behaviour of a food hoarding bird. *Journal of Animal Ecology*, 84, 71-78.
28. Walter, J.A., M.S. Marcia, **T. Mueller**, W.F. Fagan, P.C. Tobin, K.J. Haynes. 2014. How topography induces reproductive asynchrony and alters gypsy moth invasion dynamics. *Journal of Animal Ecology*, 84, 188-198.
27. **Mueller T.**, J. Lenz, T. Caprano, W.Fiedler, and K. Böhning-Gaese. 2014. Large frugivorous birds facilitate functional connectivity of fragmented landscapes. *Journal of Applied Ecology*, 51, 684-692.  
recommended by F1000Ecology: <http://f1000.com/prime/718343874?bd=1>
26. **Mueller T.**, G. Dressler, C.J. Tucker, J.E. Pinzon, P. Leimgruber, R.O. Dubayah, G.C. Hurtt, K. Böhning-Gaese, and W.F. Fagan. 2014. Human Land-Use Practices Lead to Global Long-Term Increases in Photosynthetic Capacity. *Remote Sensing*, 6, 5717-5731.
25. Lenz J., K. Böhning-Gaese, W.Fiedler, and **T. Mueller**. 2014. Nomadism and seasonal range expansion in a large frugivorous bird. *Ecography*, 38, 54–62.
24. Fleming C.H., J.M. Calabrese, **T. Mueller**, K.A. Olson, P. Leimgruber, W.F. Fagan. 2014. Non-Markovian maximum likelihood estimation of autocorrelated movement processes. *Methods in Ecology and Evolution*, 5, 462-472.
23. Fleming C.H., J.M. Calabrese, **T. Mueller**, K.A. Olson, P. Leimgruber, and W.F. Fagan. 2014. From small-scale foraging to home ranges: A semi-variance approach to identifying movement modes across spatiotemporal scales. *American Naturalist*, 183, E154-E167.
22. Batsaikhan N., B. Buuveibaatar, B.Chimed-Ochir, O. Enkh TUYA, D. Galbrakh, O.Ganbaatar, B. Lkhagvasuren, D. Nandintsetseg, J. Berger, J. M. Calabrese, A. E. Edwards, W. F. Fagan, T. K. Fuller, M. Heiner, T.Y. Ito, P. Kaczensky, P. Leimgruber, A. Lushchekina, E.J. Milner-Gulland, **T. Mueller**, M.G. Murray, K.A. Olson, R. Reading, G. B. Schaller, A. Stubbe, M. Stubbe, C. Walzer, H.v. Wehrden, T. Whitten. 2014. Crossing a new line: conserving the world's finest grassland amidst ambitious national development. *Conservation Biology*, 78, 35-41.
21. Olson K.A., E. A. Larsen, **T. Mueller**, P. Leimgruber, T. K. Fuller, G.B. Schaller, and W. F. Fagan. 2014. Survival probabilities of adult Mongolian gazelles. *Journal of Wildlife Management*, 78, 35-41.
20. **Mueller T.**, R. B. O'Hara, S. J. Converse, R.P. Urbanek, W. F. Fagan. 2013. Leadership and Spatial Learning of Migratory Performance. *Science*, 341, 999-1002.  
featured among others in:

BBC: <http://www.bbc.co.uk/news/science-environment-23892244>

NPR: <http://www.npr.org/2013/08/30/216533688/wise-old-whooping-cranes-keep-captive-bred-fledglings-on-track>

National Geographic: <http://news.nationalgeographic.com/news/2013/08/130830-whooping-crane-migration-genetic-conservation-learn-bird-animal/>

Deutschlandfunk: [http://www.deutschlandfunk.de/erfahrung-zaehlt.676.de.html?dram:article\\_id=259774](http://www.deutschlandfunk.de/erfahrung-zaehlt.676.de.html?dram:article_id=259774)

19. Fagan W.F., M.A. Lewis, M. Auger-Methe, T. Avgar, S. Benhamou, G. Breed, L. LaDage, U. E. Schlägel, W. Tang, Y. Papastamatiou, J. Forester, and **T. Mueller**. 2013. Spatial Memory and Animal Movement. *Ecology Letters*, 16, 1316–1329.
18. Jeltsch F., Bonte D., G. Pe'er, B. Reineking, P. Leimgruber, N. Balkenhohl, B. Schröder, C. Buchmann, **T. Mueller**, N. Blaum, D. Zurell, K. Böhning-Gaese, T. Wiegand, J.A. Eccard, H. Hofer, J. Reeg, U. Eggers, Bauer S. 2013. Integrating movement ecology with biodiversity research - exploring new avenues to address spatiotemporal biodiversity dynamics. *Movement Ecology*, 1-6.
17. Martinez-Garcia R., J.M. Calabrese, **T. Mueller**, K.A. Olson, and C. Lopez. 2013. Optimizing the search for resources by sharing information: Mongolian gazelles as a case study. *Physical Review Letters*, 110, 1-5.
16. Kavathekar D., **T. Mueller**, W. F. Fagan. 2013. Introducing AMV (Animal Movement Visualizer), a visualization tool for animal movement data from satellite collars and radiotelemetry. *Ecological Informatics*, 15, 91–95.
15. Naveen, R., H. J. Lynch, S. Forrest, **T. Mueller**, and M. Polito. 2012. First direct, site-wide penguin survey at Deception Island, Antarctica, suggests significant declines in breeding chinstrap penguins. *Polar Biology*, 35, 1879–1888.  
featured in Spiegel Online: <http://www.spiegel.de/wissenschaft/natur/tourismus-nicht-fuer-rueckgang-der-pinguin-bestaende-verantwortlich-a-853869.html>
14. Fagan W.F., R. S. Cantrell, C. Cosner, **T. Mueller**, and A. E. Noble. 2012 Leadership, social learning, and the maintenance (or collapse) of migratory populations. *Theoretical Ecology*, 5, 253–264.
13. **Mueller T.**, K. A. Olson, G. Dressler, P. Leimgruber, T. K. Fuller, C. Nicolson, A. J. Novaro, M. J. Bolgeri, D. Wattles, S. DeStefano, and W. F. Fagan. 2011. How landscape dynamics link individual- to population-level movement patterns: a multispecies comparison of ungulate relocation data. *Global Ecology and Biogeography*, 20, 683–694.  
featured in Science Daily: <http://www.sciencedaily.com/releases/2011/05/110511142138.htm>
12. **Mueller T.**, W.F. Fagan, and V. Grimm. 2011. Integrating individual search and navigation behaviors in mechanistic movement models. *Theoretical Ecology*, 4, 341-355.
11. Olson, K. A., **T. Mueller**, J. Kerby, S. Bolortsetseg, P. Leimgruber, C. Nicolson, and T.K. Fuller. 2011. Death by a thousand huts? Effects of household presence on gazelle density and distribution. *Conservation Letters*, 4, 304–312.
10. Pettorelli N., S. Ryan, **T. Mueller**, N. Bunnefeld, B. Jedrzejewska, M. Lima, and K. Kausrud. 2011. The Normalized Difference Vegetation Index (NDVI) in animal ecology: a decade of unforeseen successes. *Climate Research*, 46, 15–27.
9. Olson, K. A., T. K. Fuller, **T. Mueller**, M. G. Murray, C. Nicolson, D. Odonkhuu, S. Bolortsetseg, and G. B. Schaller. 2010. Annual movements of Mongolian gazelles: nomads in the Eastern Steppe. *Journal of Arid Environments*, 74, 1435–1442.

8. **Mueller T.**, N. Selva, E. Pugacewicz, and E. Prins. 2009. Scale-sensitive landscape complementation determines habitat suitability for a territorial generalist. *Ecography*, 32, 345–353.
7. Olson K., **T. Mueller**, P. Leimgruber, C. Nicolson, T. K. Fuller, S. Bolortsetseg, A. E. Fine, B. Lhagvasuren and W. F. Fagan. 2009. Fences impede long-distance gazelle movements in drought-stricken landscapes. *Mongolian Journal of Biological Science*. 7, 45–50.
6. Olson K.A., **T. Mueller**, S. Bolortsetseg, P. Leimgruber, W.F. Fagan, and T.K. Fuller. 2009. A megaherd of more than 200,000 Mongolian gazelles (*Procapra gutturosa*): a consequence of habitat quality. *Oryx*, 43, 149–153.  
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[http://news.bbc.co.uk/earth/hi/earth\\_news/newsid\\_8034000/8034392.stm](http://news.bbc.co.uk/earth/hi/earth_news/newsid_8034000/8034392.stm)
5. Leimgruber P., B. Senior, Uga, Myint Aung, **T. Mueller**, C. Wemmer, and J. D. Ballou. 2008. Modeling population viability of captive elephants in Myanmar (Burma): implications for wild populations. *Animal Conservation*, 11, 198 –205.
4. **Mueller T.** and W.F. Fagan. 2008. Search and navigation in dynamic environments - from individual behaviors to population distributions. *Oikos*, 117, 654–664.
3. **Mueller T.**, K.A. Olson, T.K. Fuller, G.B. Schaller, M.G. Murray, and P. Leimgruber. 2008. In search of forage: Predicting dynamic habitats for Mongolian gazelle using satellite-based estimates of vegetation productivity. *Journal of Applied Ecology*, 45, 649–658.
2. Strand H., P. Leimgruber, and **T. Mueller**. 2007. Chapter 5. Trends in Selected Biomes, Habitats, and Ecosystems: Dry and Sub-humid Lands. Pp. 67–86, in: Strand H, R. Höft, J. Strittholt, N. Horning, L. Miles, and E. Fosnight (eds.). *Sourcebook on Remote Sensing and Biodiversity Indicators*. Secretariat of the Convention on Biological Diversity, Montreal.
1. Leimgruber P., D.S. Kelly, M.K. Steininger, J. Brunner, **T. Mueller**, and M.A. Songer. 2006. Forest cover change patterns in Myanmar (Burma) 1990–2000. *Environmental Conservation*, 32, 356–364.

Non peer-reviewed publications:

5. Schleuning M., E.L. Neuschulz, **T. Mueller**. 2015. Tiere pflanzen den Wald von morgen. *Senckenberg 2013-2014*. 51-57.
4. **Mueller T.**, J. Krohmer. 2015. Kurs halten! Schreikraniche erlernen optimal Zugrouten von erfahrenen Altvögeln. *Senckenberg Natur Forschung Muesum*, 145, 152-155
3. Rösner S., N. Selva, **T. Mueller**, E. Pugacewicz, and F. Laudet. 2005. Raven *Corvus corax* ecology in a primeval temperate forest. Pp. 385–405, in: Jerzak L., B.P. Kavanagh, and P. Tryjanowski (eds.). *Ptaki krukowate Polski [Corvids of Poland]*. Bogucki Wyd. Nauk., Poznań.
2. Rösner S. and **T. Mueller**. 2001. Der Kolkkrabe (*Corvus corax*) in Hessen und Rheinland-Pfalz-Ausrottung, Wiederbesiedlung und Aktueller Bestand. *Charadrius*, 3, 109–112.
1. **Mueller T.** and S. Rösner. 2000. Der Kolkkrabe (*Corvus corax*) in Hessen -Wiederbesiedlung und Bestandsentwicklung. *Vogel und Umwelt*, 11, 3–11.