Circuitscape in Julia: Empowering dynamic approaches to connectivity assessment

Kimberly R. Hall, Ranjan Anantharaman, Vincent A. Landau, Melissa Clark, Brett G. Dickson, Aaron Jones, Jim Platt, Alan Edelman, and Viral B. Shah

In Land, 2021

**Supplement: Circuitscape Bibliography - applications and methods papers (including papers in Spanish and French).**

Abouelezz, H.G.; Donovan, T.M.; Mickey, R.M.; Murdoch, J.D.; Freeman, M.; Royar, K. Landscape composition mediates movement and habitat selection in bobcats (*Lynx rufus*): implications for conservation planning. *Landscape Ecol.* **2018**, *33*, 1301-1318, https://doi.org/10.1007/s10980-018-0654-8.

Adams, R.V.; Burg, T.M. Gene flow of a forest-dependent bird across a fragmented landscape. *PLoS One* **2015**, *10*, e0140938, https://doi.org/10.1371/journal.pone.0140938.

Adams, R.V.; Lazerte, S.E.; Otter, K.A.; Burg, T.M. Influence of landscape features on the microgeographic genetic structure of a resident songbird. *Heredity* **2016**, *117*, 63-72, https://doi.org/10.1038/hdy.2016.12.

Afán, I.; Chiaradia, A.; Forero, M.G.; Dann, P.; Ramirez, F. A novel spatio-temporal scale based on ocean currents unravels environmental drivers of reproductive timing in a marine predator. *Proceedings of the Royal Society B-Biological Sciences* **2015**, *282*, https://doi.org/10.1098/rspb.2015.0721.

Afán, I.; Giménez, J.; Forero, M.G.; Ramirez, F. An adaptive method for identifying marine areas of high conservation priority. *Conserv. Biol.* **2018**, *32*, 1436-1447, https://doi.org/10.1111/cobi.13154.

Afroosheh, M.; Rodder, D.; Mikulicek, P.; Akmali, V.; Vaissi, S.; Fleck, J.; Schneider, W.; Sharifi, M. Mitochondrial DNA variation and Quaternary range dynamics in the endangered Yellow Spotted Mountain Newt, *Neurergus derjugini* (Caudata, Salamandridae). *J. Zool. Syst. Evol. Res.* **2019**, *57*, 580-590, https://doi.org/10.1111/jzs.12275.

Ahmadi, M.; Balouchi, B.N.; Jowkar, H.; Hemami, M.R.; Fadakar, D.; Malakouti-Khah, S.; Ostrowski, S. Combining landscape suitability and habitat connectivity to conserve the last surviving population of cheetah in Asia. *Divers. Distrib.* **2017**, *23*, 592-603, https://doi.org/10.1111/ddi.12560.

Alexander, J.; Smith, D.A.E.; Smith, Y.C.E.; Downs, C.T. Eco-estates: Diversity hotspots or isolated developments? Connectivity of eco-estates in the Indian Ocean coastal belt, KwaZulu-Natal, South Africa. *Ecol. Indicators* **2019**, *103*, 425-433, https://doi.org/10.1016/j.ecolind.2019.04.004.

Alexander, N.B.; Statham, M.J.; Sacks, B.N.; Bean, W.T. Generalist dispersal and gene flow of an endangered keystone specialist (Dipodomys ingens). *J. Mammal.* **2019**, *100*, 1533-1545, https://doi.org/10.1093/jmammal/gyz118.

Algeo, T.; Slate, D.; Caron, R.; Atwood, T.; Recuenco, S.; Ducey, M.; Chipman, R.; Palace, M. Modeling raccoon (Procyon lotor) habitat connectivity to identify potential corridors for rabies spread. *Trop. Med. Infect. Dis.* **2017**, *2*, 44, https://doi.org/10.3390/tropicalmed2030044.

Almasieh, K.; Rouhi, H.; Kaboodvandpour, S. Habitat suitability and connectivity for the brown bear (*Ursus arctos*) along the Iran-Iraq border. *Eur. J. Wildl. Res.* **2019**, *65*, https://doi.org/57

10.1007/s10344-019-1295-1.

Altamiranda-Saavedra, M.; Conn, J.E.; Correa, M.M. Genetic structure and phenotypic variation of *Anopheles darlingi* in northwest Colombia. *Infect. Genet. Evol.* **2017**, *56*, 143-151, https://doi.org/10.1016/j.meegid.2017.11.011.

Amaral, K.E.; Palace, M.; O'Brien, K.M.; Fenderson, L.E.; Kovach, A.I. Anthropogenic habitats facilitate dispersal of an early successional obligate: implications for restoration of an endangered ecosystem. *PLoS One* **2016**, *11*, e0148842, https://doi.org/10.1371/journal.pone.0148842.

Amos, J.N.; Bennett, A.F.; Mac Nally, R.; Newell, G.; Pavlova, A.; Radford, J.Q.; Thomson, J.R.; White, M.; Sunnucks, P. Predicting landscape-genetic consequences of habitat loss, fragmentation and mobility for multiple species of woodland birds. *PLoS One* **2012**, *7*, e30888, https://doi.org/10.1371/journal.pone.0030888.

Amos, J.N.; Harrisson, K.A.; Radford, J.Q.; White, M.; Newell, G.; Mac Nally, R.; Sunnucks, P.; Pavlova, A. Species- and sex-specific connectivity effects of habitat fragmentation in a suite of woodland birds. *Ecology* **2014**, *95*, 1556-1568.

An, Y.; Liu, S.L.; Sun, Y.X.; Shi, F.N.; Beazley, R. Construction and optimization of an ecological network based on morphological spatial pattern analysis and circuit theory. *Landscape Ecol.* **2020**,, https://doi.org/10.1007/s10980-020-01027-3.

An, Y.; Liu, S.L.; Sun, Y.X.; Shi, F.N.; Zhao, S. Negative effects of farmland expansion on multi-species landscape connectivity in a tropical region in Southwest China. *Agricultural Systems* **2020**, *179*, https://doi.org/10.1016/j.agsy.2019.102766.

Anderson, M.G.; Barnett, A.; Clark, M.; Olivero Sheldon, A.; Prince, J. *Resilient and Connected Landscapes for Conservation across Eastern North America*; The Nature Conservancy, Eastern Conservation Science: Boston. http://www.nature.ly/TNCResilience, 2016; p 161 pp.

Andraca-Gomez, G.; Lombaert, E.; Ordano, M.; Perez-Ishiwara, R.; Boege, K.; Dominguez, C.A.; Fornoni, J. Local dispersal pathways during the invasion of the cactus moth, Cactoblastis cactorum, within North America and the Caribbean. *Scientific Reports* **2020**, *10*, 10, https://doi.org/10.1038/s41598-020-66864-3.

Andraca-Gomez, G.; Ordano, M.; Boege, K.; Dominguez, C.A.; Pinero, D.; Perez-Ishiwara, R.; Perez-Camacho, J.; Canizares, M.; Fornoni, J. A potential invasion route of *Cactoblastis cactorum* within the Caribbean region matches historical hurricane trajectories. *Biol. Invasions* **2015**, *17*, 1397-1406, https://doi.org/10.1007/s10530-014-0802-2.

Andrew, R.L.; Ostevik, K.L.; Ebert, D.P.; Rieseberg, L.H. Adaptation with gene flow across the landscape in a dune sunflower. *Mol. Ecol.* **2012**, *21*, 2078-2091, https://doi.org/10.1111/j.1365-294X.2012.05454.x.

Angulo, D.F.; Amarilla, L.D.; Anton, A.M.; Sosa, V. Colonization in North American arid lands: The journey of agarito (*Berberis trifoliolata*) revealed by multilocus molecular data and packrat midden fossil remains. *PLoS One* **2017**, *12*, e0168933, https://doi.org/10.1371/journal.pone.0168933.

Antunes, B.; Lourenco, A.; Caeiro-Dias, G.; Dinis, M.; Goncalves, H.; Martinez-Solano, I.; Tarroso, P.; Velo-Anton, G. Combining phylogeography and landscape genetics to infer the evolutionary history of a short-range Mediterranean relict, Salamandra salamandra longirostris. *Conserv. Genet.* **2018**, *19*, 1411-1424, https://doi.org/10.1007/s10592-018-1110-7.

Aparicio, B.A.; Cascalho, J.; Cruz, M.J.; Borges, P.A.V.; Azevedo, E.B.; Elias, R.B.; Ascensao, F. Assessing the landscape functional connectivity using movement maps: a case study with endemic Azorean insects. *J. Insect Conserv.* **2018**, *22*, 257-265, https://doi.org/10.1007/s10841-018-0059-7.

Apodaca, J.J.; Rissler, L.J.; Godwin, J.C. Population structure and gene flow in a heavily disturbed habitat: implications for the management of the imperilled Red Hills salamander (*Phaeognathus hubrichti*). *Conserv. Genet.* **2012**, *13*, 913-923, https://doi.org/10.1007/s10592-012-0340-3.

Arbelaez-Cortes, E.; Mila, B.; Navarro-Siguenza, A.G. Multilocus analysis of intraspecific differentiation in three endemic bird species from the northern Neotropical dry forest. *Mol. Phylogen. Evol.* **2014**, *70*, 362-377, https://doi.org/10.1016/j.ympev.2013.10.006.

Ashrafzadeh, M.R.; Khosravi, R.; Ahmadi, M.; Kaboli, M. Landscape heterogeneity and ecological niche isolation shape the distribution of spatial genetic variation in Iranian brown bears, *Ursus arctos* (Carnivora: Ursidae). *Mamm. Biol.* **2018**, *93*, 64-75, https://doi.org/10.1016/j.mambio.2018.08.007.

Ashrafzadeh, M.R.; Naghipour, A.A.; Haidarian, M.; Kusza, S.; Pilliod, D.S. Effects of climate change on habitat and connectivity for populations of a vulnerable, endemic salamander in Iran. *Glob. Ecol. Conserv.* **2019**, *19*, e00637, https://doi.org/10.1016/j.gecco.2019.e00637.

Atlas, J.E.; Fu, J. Isolation by resistance analysis reveals major barrier effect imposed by the Tsinling Mountains on the Chinese wood frog. *J. Zool.* **2019**, *309*, 69-75, https://doi.org/10.1111/jzo.12702.

Avon, C.; Berges, L. Prioritization of habitat patches for landscape connectivity conservation differs between least-cost and resistance distances. *Landscape Ecol.* **2016**, *31*, 1551-1565, https://doi.org/10.1007/s10980-015-0336-8.

Aylward, C.M.; Murdoch, J.D.; Donovan, T.M.; Kilpatrick, C.W.; Bernier, C.; Katz, J. Estimating distribution and connectivity of recolonizing American marten in the northeastern United States using expert elicitation techniques. *Anim. Conserv.* **2018**, *21*, 483-495, https://doi.org/10.1111/acv.12417.

Aylward, C.M.; Murdoch, J.D.; Kilpatrick, C.W. Multiscale landscape genetics of American marten at their southern range periphery. *Heredity* **2020**, *124*, 550-561, https://doi.org/10.1038/s41437-020-0295-y.

Baden, A.L.; Mancini, A.N.; Federman, S.; Holmes, S.M.; Johnson, S.E.; Kamilar, J.; Louis, E.E.; Bradley, B.J. Anthropogenic pressures drive population genetic structuring across a Critically Endangered lemur species range. *Scientific Reports* **2019**, *9*, 16276, https://doi.org/10.1038/s41598-019-52689-2.

Balbi, M.; Ernoult, A.; Poli, P.; Madec, L.; Guiller, A.; Martin, M.C.; Nabucet, J.; Beaujouan, V.; Petit, E.J. Functional connectivity in replicated urban landscapes in the land snail (*Cornu aspersum*). *Mol. Ecol.* **2018**, *27*, 1357-1370, https://doi.org/10.1111/mec.14521.

Balestrieri, A.; Mori, E.; Menchetti, M.; Ruiz-Gonzalez, A.; Milanesi, P. Far from the madding crowd: Tolerance toward human disturbance shapes distribution and connectivity patterns of closely related *Martes* spp. *Popul. Ecol.* **2019**, *61*, 289-299, https://doi.org/10.1002/1438-390x.12001.

Balkenhol, N.; Holbrook, J.D.; Onorato, D.; Zager, P.; White, C.; Waits, L.P. A multi-method approach for analyzing hierarchical genetic structures: a case study with cougars *Puma concolor*. *Ecography* **2014**, *37*, 552-563, https://doi.org/10.1111/j.1600-0587.2013.00462.x.

Balkenhol, N.; Schwartz, M.K.; Inman, R.M.; Copeland, J.P.; Squires, J.S.; Anderson, N.J.; Waits, L.P. Landscape genetics of wolverines (*Gulo gulo*): scale-dependent effects of bioclimatic, topographic, and anthropogenic variables. *J. Mammal.* **2020**, *101*, 790-803, https://doi.org/10.1093/jmammal/gyaa037.

Banerjee, A.K.; Hou, Z.W.; Lin, Y.T.; Lan, W.T.; Tan, F.X.; Xing, F.; Li, G.H.; Guo, W.X.; Huang, Y.L. Going with the flow: analysis of population structure reveals high gene flow shaping invasion pattern and inducing range expansion of *Mikania micrantha* in Asia. *Ann. Bot.* **2020**, *125*, 1113-1126, https://doi.org/10.1093/aob/mcaa044.

Bani, L.; Orioli, V.; Pisa, G.; Dondina, O.; Fagiani, S.; Fabbri, E.; Randi, E.; Mortelliti, A.; Sozio, G. Landscape determinants of genetic differentiation, inbreeding and genetic drift in the hazel dormouse (*Muscardinus avellanarius*). *Conserv. Genet.* **2018**, *19*, 283-296, https://doi.org/10.1007/s10592-017-0999-6.

Bani, L.; Pisa, G.; Luppi, M.; Spilotros, G.; Fabbri, E.; Randi, E.; Orioli, V. Ecological connectivity assessment in a strongly structured fire salamander (*Salamandra salamandra*) population. *Ecol. Evol.* **2015**, *5*, 3472-3485, https://doi.org/10.1002/ece3.1617.

Banks, S.C.; Lindenmayer, D.B. Inbreeding avoidance, patch isolation and matrix permeability influence dispersal and settlement choices by male agile antechinus in a fragmented landscape. *J. Anim. Ecol.* **2014**, *83*, 515-524, https://doi.org/10.1111/1365-2656.12128.

Barbosa, S.; Mestre, F.; White, T.A.; Pauperio, J.; Alves, P.C.; Searle, J.B. Integrative approaches to guide conservation decisions: Using genomics to define conservation units and functional corridors. *Mol. Ecol.* **2018**, *27*, 3452-3465, https://doi.org/10.1111/mec.14806.

Barker, B.S.; Rodriguez-Robles, J.A.; Cook, J.A. Climate as a driver of tropical insular diversity: comparative phylogeography of two ecologically distinctive frogs in Puerto Rico. *Ecography* **2015**, *38*, 769-781, https://doi.org/10.1111/ecog.01327.

Barley, A.J.; Monnahan, P.J.; Thomson, R.C.; Grismer, L.L.; Brown, R.M. Sun skink landscape genomics: assessing the roles of micro-evolutionary processes in shaping genetic and phenotypic diversity across a heterogeneous and fragmented landscape. *Mol. Ecol.* **2015**, *24*, 1696-1712, https://doi.org/10.1111/mec.13151.

Barr, K.R.; Kus, B.E.; Preston, K.L.; Howell, S.; Perkins, E.; Vandergast, A.G. Habitat fragmentation in coastal southern California disrupts genetic connectivity in the cactus wren (*Campylorhynchus brunneicapillus*). *Mol. Ecol.* **2015**, *24*, 2349-2363, https://doi.org/10.1111/mec.13176.

Bartlett, M.; Hale, R.; Hale, M. Habitat quality limits gene flow between populations of *Bombus ruderatus* in the South Island, New Zealand. *Conserv. Genet.* **2016**, *17*, 703-713, https://doi.org/10.1007/s10592-016-0816-7.

Barton, H.D.; Gregory, A.J.; Davis, R.; Hanlon, C.A.; Wisely, S.M. Contrasting landscape epidemiology of two sympatric rabies virus strains. *Mol. Ecol.* **2010**, *19*, 2725-2738, https://doi.org/10.1111/j.1365-294X.2010.04668.x.

Baumann, M.; Kamp, J.; Potzschner, F.; Bleyhl, B.; Dara, A.; Hankerson, B.; Prishchepov, A.V.; Schierhorn, F.; Muller, D.; Holzel, N., et al. Declining human pressure and opportunities for rewilding in the steppes of Eurasia. *Divers. Distrib.* **2020**, *26*, 1058-1070, https://doi.org/10.1111/ddi.13110.

Becker, C.G.; Longo, A.V.; Haddad, N.M.; Zamudio, K.R. Land cover and forest connectivity alter the interactions among host, pathogen, and skin microbiome. *Proc. R. Soc. Lond., Ser. B: Biol. Sci.* **2017**, *284*, 10.6084/m6089, https://doi.org/10.1098/rspb.2017.0582.

Bell, R.C.; Parra, J.L.; Badjedjea, G.; Barej, M.F.; Blackburn, D.C.; Burger, M.; Channing, A.; Dehling, J.M.; Greenbaum, E.; Gvozdik, V., et al. Idiosyncratic responses to climate-driven forest fragmentation and marine incursions in reed frogs from Central Africa and the Gulf of Guinea Islands. *Mol. Ecol.* **2017**, *26*, 5223-5244, https://doi.org/10.1111/mec.14260.

Bell, R.C.; Parra, J.L.; Tonione, M.; Hoskin, C.J.; Mackenzie, J.B.; Williams, S.E.; Moritz, C. Patterns of persistence and isolation indicate resilience to climate change in montane rainforest lizards. *Mol. Ecol.* **2010**, *19*, 2531-2544, https://doi.org/10.1111/j.1365-294X.2010.04676.x.

Beninde, J.; Feldmeier, S.; Werner, M.; Peroverde, D.; Schulte, U.; Hochkirch, A.; Veith, M. Cityscape genetics: structural vs. functional connectivity of an urban lizard population. *Mol. Ecol.* **2016**, *25*, 4984-5000, https://doi.org/10.1111/mec.13810.

Benito, X.; Fritz, S.C.; Steinitz-Kannan, M.; Velez, M.I.; McGlue, M.M. Lake regionalization and diatom metacommunity structuring in tropical South America. *Ecol. Evol.* **2018**, *8*, 7865-7878, https://doi.org/10.1002/ece3.4305.

Bennie, J.; Davies, T.W.; Inger, R.; Gaston, K.J.; Chisholm, R. Mapping artificial lightscapes for ecological studies. *Methods Ecol. Evol.* **2014**, *5*, 534-540, https://doi.org/10.1111/2041-210x.12182.

Berkman, L.K.; Nielsen, C.K.; Roy, C.L.; Heist, E.J. A landscape genetic analysis of swamp rabbits (*Sylvilagus aquaticus*) suggests forest canopy cover enhances gene flow in an agricultural matrix. *Canadian Journal of Zoology* **2018**, *96*, 622-632, https://doi.org/10.1139/cjz-2017-0116.

Berkman, L.K.; Nielsen, C.K.; Roy, C.L.; Heist, E.J. Resistance is futile: effects of landscape features on gene flow of the northern bobwhite. *Conserv. Genet.* **2013**, *14*, 323-332, https://doi.org/10.1007/s10592-013-0471-1.

Bishop-Taylor, R.; Tulbure, M.G.; Broich, M. Evaluating static and dynamic landscape connectivity modelling using a 25-year remote sensing time series. *Landscape Ecol.* **2018**, *33*, 625-640, https://doi.org/10.1007/s10980-018-0624-1.

Bishop-Taylor, R.; Tulbure, M.G.; Broich, M. Impact of hydroclimatic variability on regional-scale landscape connectivity across a dynamic dryland region. *Ecol. Indicators* **2018**, *94*, 142-150, https://doi.org/10.1016/j.ecolind.2017.07.029.

Bishop-Taylor, R.; Tulbure, M.G.; Broich, M. Surface water network structure, landscape resistance to movement and flooding vital for maintaining ecological connectivity across Australia's largest river basin. *Landscape Ecol.* **2015**, *30*, 2045-2065, https://doi.org/10.1007/s10980-015-0230-4.

Bishop-Taylor, R.; Tulbure, M.G.; Broich, M. Surface-water dynamics and land use influence landscape connectivity across a major dryland region. *Ecol. Appl.* **2017**, *27*, 1124-1137, https://doi.org/10.1002/eap.1507.

Blair, C.; Arcos, V.H.J.; de la Cruz, F.R.M.; Murphy, R.W. Historical and contemporary demography of leaf-toed geckos (Phyllodactylidae: Phyllodactylus tuberculosus saxatilis) in the Mexican dry forest. *Conserv. Genet.* **2015**, *16*, 419-429, https://doi.org/10.1007/s10592-014-0668-y.

Blair, C.; Arcos, V.H.J.; de la Cruz, F.R.M.; Murphy, R.W. Landscape genetics of leaf-toed geckos in the tropical dry forest of Northern Mexico. *PLoS One* **2013**, *8*, e57433, https://doi.org/10.1371/journal.pone.0057433.

Blair, M.E.; Melnick, D.J. Scale-dependent effects of a heterogeneous landscape on genetic differentiation in the Central American Squirrel Monkey (*Saimiri oerstedii*). *PLoS One* **2012**, *7*, e43027, https://doi.org/10.1371/journal.pone.0043027.

Bleyhl, B.; Baumann, M.; Griffiths, P.; Heidelberg, A.; Manvelyan, K.; Radeloff, V.C.; Zazanashvili, N.; Kuemmerle, T. Assessing landscape connectivity for large mammals in the Caucasus using Landsat 8 seasonal image composites. *Remote Sens. Environ.* **2017**, *193*, 193-203, https://doi.org/10.1016/j.rse.2017.03.001.

Bonnin, N.; Stewart, F.A.; Wich, S.A.; Pintea, L.; Jantz, S.M.; Dickson, R.; Bellis, J.; Chitayat, A.; Ingram, R.; Moore, R.J., et al. Modelling landscape connectivity change for chimpanzee conservation in Tanzania. *Biol. Conserv.* **2020**, *252*, 10, https://doi.org/10.1016/j.biocon.2020.108816.

Bowman, J.; Adey, E.; Angoh, S.Y.J.; Baici, J.E.; Brown, M.G.C.; Cordes, C.; Dupuis, A.E.; Newar, S.L.; Scott, L.M.; Solmundson, K. Effects of cost surface uncertainty on current density estimates from circuit theory. *PeerJ* **2020**, *8*, https://doi.org/10.7717/peerj.9617.

Boyle, S.P.; Litzgus, J.D.; Lesbarrères, D. Comparison of road surveys and circuit theory to predict hotspot locations for implementing road-effect mitigation. *Biodivers. Conserv.* **2017**, *26*, 3445-3463, https://doi.org/10.1007/s10531-017-1414-9.

Braaker, S.; Kormann, U.; Bontadina, F.; Obrist, M.K. Prediction of genetic connectivity in urban ecosystems by combining detailed movement data, genetic data and multi-path modelling. *Landscape Urban Plann.* **2017**, *160*, 107-114, https://doi.org/10.1016/j.landurbplan.2016.12.011.

Braaker, S.; Moretti, M.; Boesch, R.; Ghazoul, J.; Obrist, M.K.; Bontadina, F. Assessing habitat connectivity for ground-dwelling animals in an urban environment. *Ecol. Appl.* **2014**, *24*, 1583-1595.

Brambilla, M.; Caprio, E.; Assandri, G.; Scridel, D.; Bassi, E.; Bionda, R.; Celada, C.; Falco, R.; Bogliani, G.; Pedrini, P., et al. A spatially explicit definition of conservation priorities according to population resistance and resilience, species importance and level of threat in a changing climate. *Divers. Distrib.* **2017**, *23*, 727-738, https://doi.org/10.1111/ddi.12572.

Breckheimer, I.; Haddad, N.M.; Morris, W.F.; Trainor, A.M.; Fields, W.R.; Jobe, R.T.; Hudgens, B.R.; Moody, A.; Walters, J.R. Defining and evaluating the umbrella species concept for conserving and restoring landscape connectivity. *Conserv. Biol.* **2014**, *28*, 1584-1593, https://doi.org/10.1111/cobi.12362.

Brennan, A.; Beytell, P.; Aschenborn, O.; Du Preez, P.; Funston, P.J.; Hanssen, L.; Kilian, J.W.; Stuart-Hill, G.; Taylor, R.D.; Naidoo, R. Characterizing multispecies connectivity across a transfrontier conservation landscape. *J. Appl. Ecol.* **2020**, 10.1111/1365-2664.13716, https://doi.org/10.1111/1365-2664.13716.

Brennan, A.; Hanks, E.M.; Merkle, J.A.; Cole, E.K.; Dewey, S.R.; Courtemanch, A.B.; Cross, P.C. Examining speed versus selection in connectivity models using elk migration as an example. *Landscape Ecol.* **2018**, *33*, 955-968, https://doi.org/10.1007/s10980-018-0642-z.

Brodie, J.F.; Giordano, A.J.; Dickson, B.G.; Hebblewhite, M.; Bernard, H.; Mohd-Azlan, J.; Anderson, J.; Ambu, L. Evaluating multispecies landscape connectivity in a threatened tropical mammal community. *Conserv. Biol.* **2015**, *29*, 122-132, https://doi.org/10.1111/cobi.12337.

Brodie, J.F.; Mohd-Azlan, J.; Schnell, J.K. How individual links affect network stability in a large-scale, heterogeneous metacommunity. *Ecology* **2016**, *97*, 1658-1667, https://doi.org/10.1890/15-1613.1.

Brodie, J.F.; Newmark, W.D. Heterogeneous matrix habitat drives species occurrences in complex, fragmented landscapes. *Am. Nat.* **2019**, *193*, 748-754, https://doi.org/10.1086/702589.

Brunker, K.; Lemey, P.; Marston, D.A.; Fooks, A.R.; Lugelo, A.; Ngeleja, C.; Hampson, K.; Biek, R. Landscape attributes governing local transmission of an endemic zoonosis: Rabies virus in domestic dogs. *Mol. Ecol.* **2018**, *27*, 773-788, https://doi.org/doi:10.1111/mec.14470.

Buainain, N.; Canton, R.; Zuquim, G.; Tuomisto, H.; Hrbek, T.; Sato, H.; Ribas, C.C. Paleoclimatic evolution as the main driver of current genomic diversity in the widespread and polymorphic Neotropical songbird Arremon taciturnus. *Mol. Ecol.* **2020**, *29*, 2922-2939, https://doi.org/10.1111/mec.15534.

Buchholtz, E.K.; Stronza, A.; Songhurst, A.; McCulloch, G.; Fitzgerald, L.A. Using landscape connectivity to predict human-wildlife conflict. *Biol. Conserv.* **2020**, *248*, https://doi.org/10.1016/j.biocon.2020.108677.

Buglione, M.; Petrelli, S.; Troiano, C.; Notomista, T.; Petrella, A.; De Riso, L.; Poerio, L.; Cascini, V.; Bartolomei, R.; Fulgione, D. Spatial genetic structure in the Eurasian otter (Lutra lutra) meta-population from its core range in Italy. *Contributions to Zoology* **2020**, 10.1163/18759866-bja10012, 1-23, https://doi.org/10.1163/18759866-bja10012.

Burke, R.A.; Frey, J.K.; Ganguli, A.; Stoner, K.E. Species distribution modelling supports "nectar corridor" hypothesis for migratory nectarivorous bats and conservation of tropical dry forest. *Divers. Distrib.* **2019**, *25*, 1399-1415, https://doi.org/10.1111/ddi.12950.

Cameron, A.C.; Page, R.B.; Watling, J.I.; Hickerson, C.A.M.; Anthony, C.D. Using a comparative approach to investigate the relationship between landscape and genetic connectivity among woodland salamander populations. *Conserv. Genet.* **2019**, *20*, 1265-1280, https://doi.org/10.1007/s10592-019-01207-y.

Campos, J.C.; Mobaraki, A.; Abtin, E.; Godinho, R.; Brito, J.C. Preliminary assessment of genetic diversity and population connectivity of the Mugger Crocodile in Iran. *Amphibia-Reptilia* **2018**, *39*, 126-131, https://doi.org/10.1163/15685381-16000173.

Camurugi, F.; Gehara, M.; Fonseca, E.M.; Zamudio, K.R.; Haddad, C.F.B.; Colli, G.R.; Thome, M.T.C.; Prado, C.P.A.; Napoli, M.F.; Garda, A.A. Isolation by environment and recurrent gene flow shaped the evolutionary history of a continentally distributed Neotropical treefrog. *J. Biogeogr.* **2020**, 10.1111/jbi.14035, 13, https://doi.org/10.1111/jbi.14035.

Cañedo-Argüelles, M.; Boersma, K.S.; Bogan, M.T.; Olden, J.D.; Phillipsen, I.; Schriever, T.A.; Lytle, D.A. Dispersal strength determines meta-community structure in a dendritic riverine network. *J. Biogeogr.* **2015**, *42*, 778-790, https://doi.org/10.1111/jbi.12457.

Canedo-Arguelles, M.; Gutierrez-Canovas, C.; Acosta, R.; Castro-Lopez, D.; Cid, N.; Fortuno, P.; Munne, A.; Murria, C.; Pimentao, A.R.; Sarremejane, R., et al. As time goes by: 20 years of changes in the aquatic macroinvertebrate metacommunity of Mediterranean river networks. *J. Biogeogr.* **2020**, *47*, 1861-1874, https://doi.org/10.1111/jbi.13913.

Cao, Y.; Yang, R.; Carver, S. Linking wilderness mapping and connectivity modelling: A methodological framework for wildland network planning. *Biol. Conserv.* **2020**, *251*, https://doi.org/10.1016/j.biocon.2020.108679.

Carroll, C.; Fredrickson, R.J.; Lacy, R.C. Developing metapopulation connectivity criteria from genetic and habitat data to recover the endangered Mexican Wolf. *Conserv. Biol.* **2014**, *28*, 76-86, https://doi.org/10.1111/cobi.12156.

Carroll, K.A.; Hansen, A.J.; Inman, R.M.; Lawrence, R.L.; Hoegh, A.B. Testing landscape resistance layers and modeling connectivity for wolverines in the western United States. *Glob. Ecol. Conserv.* **2020**, *23*, https://doi.org/10.1016/j.gecco.2020.e01125.

Castilho, C.S.; Hackbart, V.C.S.; Pivello, V.R.; dos Santos, R.F. Evaluating landscape connectivity for *Puma concolor* and *Panthera onca* among Atlantic forest protected areas. *Environ. Manage.* **2015**, *55*, 1377-1389, https://doi.org/10.1007/s00267-015-0463-7.

Castilho, C.S.; Marins-Sa, L.G.; Benedet, R.C.; Freitas, T.O. Landscape genetics of mountain lions (*Puma concolor*) in southern Brazil. *Mamm. Biol.* **2011**, *76*, 476-483, https://doi.org/10.1016/j.mambio.2010.08.002.

Castilla, A.R.; Mendez-Vigo, B.; Marcer, A.; Martinez -Minaya, J.; Conesa, D.; Pico, F.X.; Alonso-Blanco, C. Ecological, genetic and evolutionary drivers of regional genetic differentiation in *Arabidopsis thaliana*. *BMC Evol. Biol.* **2020**, *20*, 71, https://doi.org/10.1186/s12862-020-01635-2.

Castilla, A.R.; Pope, N.; Jaffe, R.; Jha, S. Elevation, not deforestation, promotes genetic differentiation in a pioneer tropical tree. *PLoS One* **2016**, *11*, e0156694, https://doi.org/10.1371/journal.pone.0156694.

Castillo, J.A.; Epps, C.W.; Davis, A.R.; Cushman, S.A. Landscape effects on gene flow for a climate-sensitive montane species, the American pika. *Mol. Ecol.* **2014**, *23*, 843-856, https://doi.org/10.1111/mec.12650.

Castillo, J.A.; Epps, C.W.; Jeffress, M.R.; Ray, C.; Rodhouse, T.J.; Schwalm, D. Replicated landscape genetic and network analyses reveal wide variation in functional connectivity for American pikas. *Ecol. Appl.* **2016**, *26*, 1660-1676, https://doi.org/10.1890/15-1452.1.

Cayuela, H.; Besnard, A.; Cote, J.; Laporte, M.; Bonnaire, E.; Pichenot, J.; Schtickzelle, N.; Bellec, A.; Joly, P.; Lena, J.P. Anthropogenic disturbance drives dispersal syndromes, demography, and gene flow in amphibian populations. *Ecol. Monogr.* **2020**, *90*, e01406, https://doi.org/10.1002/ecm.1406.

Centeno-Cuadros, A.; Hulva, P.; Romportl, D.; Santoro, S.; Stribna, T.; Shohami, D.; Evin, A.; Tsoar, A.; Benda, P.; Horacek, I., et al. Habitat use, but not gene flow, is influenced by human activities in two ecotypes of Egyptian fruit bat (*Rousettus aegyptiacus*). *Mol. Ecol.* **2017**, *26*, 6224-6237, https://doi.org/10.1111/mec.14365.

Chan, K.O.; Brown, R.M. Elucidating the drivers of genetic differentiation in Malaysian torrent frogs (Anura: Ranidae: Amolops): a landscape genomics approach. *Zool. J. Linn. Soc.* **2020**, *190*, 65-78.

Chávez-Pesqueira, M.; Suarez-Montes, P.; Castillo, G.; Nunez-Farfan, J. Habitat fragmentation threatens wild populations of *Carica papaya* (Caricaceae) in a lowland rainforest. *Am. J. Bot.* **2014**, *101*, 1092-1101, https://doi.org/10.3732/ajb.1400051.

Chiappero, M.B.; Sommaro, L.V.; Priotto, J.W.; Wiernes, M.P.; Steinmann, A.R.; Gardenal, C.N. Spatio-temporal genetic structure of the rodent *Calomys venustus* in linear, fragmented habitats. *J. Mammal.* **2016**, *97*, 424-435, https://doi.org/10.1093/jmammal/gyv186.

Choe, H.; Thorne, J.H. Omnidirectional connectivity of urban open spaces provides context for local government redevelopment plans. *Landsc. Ecol. Eng.* **2019**, *15*, 245-251, https://doi.org/10.1007/s11355-019-00377-8.

Churko, G.; Kienast, F.; Bolliger, J. A multispecies assessment to identify the functional connectivity of amphibians in a human-dominated landscape. *ISPRS Int. Geo-Inf.* **2020**, *9*, 287, https://doi.org/10.3390/ijgi9050287.

Churko, G.; Walter, T.; Szerencsits, E.; Gramlich, A. Improving wetland connectivity through the promotion of wet arable land. *Wetlands Ecol. Manage.* **2020**, *28*, 667-680, https://doi.org/10.1007/s11273-020-09739-8.

Cianfrani, C.; Maiorano, L.; Loy, A.; Kranz, A.; Lehmann, A.; Maggini, R.; Guisan, A. There and back again? Combining habitat suitability modelling and connectivity analyses to assess a potential return of the otter to Switzerland. *Anim. Conserv.* **2013**, *16*, 584-594, https://doi.org/10.1111/acv.12033.

Correa Ayram, C.A.; Mendoza, M.E.; Etter, A.; Perez-Salicrup, D.R. Effect of the landscape matrix condition for prioritizing multispecies connectivity conservation in a highly biodiverse landscape of Central Mexico. *Reg. Environ. Change* **2019**, *19*, 149-163, https://doi.org/10.1007/s10113-018-1393-8.

Correa Ayram, C.A.; Mendoza, M.E.; Etter, A.; Salicrup, D.R.P. Anthropogenic impact on habitat connectivity: A multidimensional human footprint index evaluated in a highly biodiverse landscape of Mexico. *Ecol. Indicators* **2017**, *72*, 895-909, https://doi.org/10.1016/j.ecolind.2016.09.007.

Correa Ayram, C.A.; Mendoza, M.E.; Salicrup, D.R.P.; Granados, E.L. Identifying potential conservation areas in the Cuitzeo Lake basin, Mexico by multitemporal analysis of landscape connectivity. *J. Nat. Conserv.* **2014**, *22*, 424-435, https://doi.org/10.1016/j.jnc.2014.03.010.

Coulon, A.; Aben, J.; Palmer, S.C.F.; Stevens, V.M.; Callens, T.; Strubbe, D.; Lens, L.; Matthysen, E.; Baguette, M.; Travis, J.M.J. A stochastic movement simulator improves estimates of landscape connectivity. *Ecology* **2015**, *96*, 2203-2213, https://doi.org/10.1890/14-1690.1.

Courtenay, C.I.; Lookingbill, T.R. Designing a regional trail network of high conservation value using principles of green infrastructure. *Southeast. Geogr.* **2014**, *54*, 270-290, https://doi.org/10.1353/sgo.2014.0023.

Cox, K.; Maes, J.; Van Calster, H.; Mergeay, J. Effect of the landscape matrix on gene flow in a coastal amphibian metapopulation. *Conserv. Genet.* **2017**, *18*, 1359-1375, https://doi.org/10.1007/s10592-017-0985-z.

Crawford, J.A.; Peterman, W.E.; Kuhns, A.R.; Eggert, L.S. Altered functional connectivity and genetic diversity of a threatened salamander in an agroecosystem. *Landscape Ecol.* **2016**, *31*, 2231-2244, https://doi.org/10.1007/s10980-016-0394-6.

Crist, M.R.; Knick, S.T.; Hanser, S.E. Range-wide connectivity of priority areas for Greater Sage-Grouse: Implications for long-term conservation from graph theory. *Condor* **2017**, *119*, 44-57, https://doi.org/10.1650/condor-16-60.1.

Dai, Y.C.; Hacker, C.E.; Zhang, Y.G.; Li, W.W.; Li, J.; Zhang, Y.; Bona, G.; Liu, H.D.; Li, Y.; Xue, Y.D., et al. Identifying the risk regions of house break-ins caused by Tibetan brown bears (*Ursus arctos pruinosus*) in the Sanjiangyuan region, China. *Ecol. Evol.* **2019**, *9*, 13979-13990, https://doi.org/10.1002/ece3.5835.

Dai, Y.C.; Hacker, C.E.; Zhang, Y.G.; Li, W.W.; Zhang, Y.; Liu, H.D.; Zhang, J.J.; Ji, Y.R.; Xue, Y.D.; Li, D.Q. Identifying climate refugia and its potential impact on Tibetan brown bear (*Ursus arctos pruinosus*) in Sanjiangyuan National Park, China. *Ecol. Evol.* **2019**, 10.1002/ece3.5780, https://doi.org/10.1002/ece3.5780.

Dalui, S.; Khatri, H.; Singh, S.K.; Basu, S.; Ghosh, A.; Mukherjee, T.; Sharma, L.K.; Singh, R.; Chandra, K.; Thakur, M. Fine-scale landscape genetics unveiling contemporary asymmetric movement of red panda (*Ailurus fulgens*) in Kangchenjunga landscape, India. *Scientific Reports* **2020**, *10*, 12, https://doi.org/10.1038/s41598-020-72427-3.

Dambach, J.; Raupach, M.J.; Leese, F.; Schwarzer, J.; Engler, J.O. Ocean currents determine functional connectivity in an Antarctic deep-sea shrimp. *Mar. Ecol.* **2016**, *37*, 1336-1344, https://doi.org/10.1111/maec.12343.

Darwell, C.T.; Fischer, G.; Sarnat, E.M.; Friedman, N.R.; Liu, C.; Baiao, G.; Mikheyev, A.S.; Economo, E.P. Genomic and phenomic analysis of island ant community assembly. *Mol. Ecol.* **2020**, 10.1111/mec.15326, https://doi.org/10.1111/mec.15326.

Das, A.A.; John, R.; Anand, M. Does structural connectivity influence tree species distributions and abundance in a naturally discontinuous tropical forest formation? *J. Veg. Sci.* **2017**, *28*, 7-18, https://doi.org/10.1111/jvs.12474.

de Fraga, R.; Lima, A.P.; Magnusson, W.E.; Ferrao, M.; Stow, A.J. Contrasting patterns of gene flow for Amazonian snakes that actively forage and those that wait in ambush. *J. Hered.* **2017**, *108*, 524-534, https://doi.org/10.1093/jhered/esx051.

De Kort, H.; Baguette, M.; Prunier, J.G.; Tessier, M.; Monsimet, J.; Turlure, C.; Stevens, V. Genetic costructure in a meta-community under threat of habitat fragmentation. *Mol. Ecol.* **2018**, *27*, 2193-2203, https://doi.org/10.1111/mec.14569.

De Kort, H.; Prunier, J.G.; Tessier, M.; Turlure, C.; Baguette, M.; Stevens, V.M. Interacting grassland species under threat of multiple global change drivers. *J. Biogeogr.* **2018**, *45*, 2133-2145, https://doi.org/10.1111/jbi.13397.

de la Torre, J.A.; Núñez, J.M.; Medellín, R.A. Habitat availability and connectivity for jaguars (*Panthera onca*) in the Southern Mayan Forest: Conservation priorities for a fragmented landscape. *Biol. Conserv.* **2017**, *206*, 270-282, https://doi.org/10.1016/j.biocon.2016.11.034.

de la Torre, J.A.; Rivero, M.; Camacho, G.; Álvarez-Márquez, L.A. Assessing occupancy and habitat connectivity for Baird's tapir to establish conservation priorities in the Sierra Madre de Chiapas, Mexico. *J. Nat. Conserv.* **2018**, *41*, 16-25, https://doi.org/10.1016/j.jnc.2017.10.004.

Dehaghi, I.M.; Soffianian, A.; Hemami, M.-R.; Pourmanafi, S.; Salmanmahiny, A.; Wu, G.-M. Exploring structural and functional corridors for wild sheep (*Ovis orientalis*) in a semi-arid area. *J. Arid Environ.* **2018**, *156*, 27-33, https://doi.org/10.1016/j.jaridenv.2018.04.009.

D'Elia, J.; Brandt, J.; Burnett, L.J.; Haig, S.M.; Hollenbeck, J.; Kirkland, S.; Marcot, B.G.; Punzalan, A.; West, C.J.; Williams-Claussen, T., et al. Applying circuit theory and landscape linkage maps to reintroduction planning for California Condors. *PLoS One* **2019**, *14*, e0226491, https://doi.org/10.1371/journal.pone.0226491.

Della Rocca, F.; Bogliani, G.; Milanesi, P. Patterns of distribution and landscape connectivity of the stag beetle in a human-dominated landscape. *Nature Conserv.-Bulgaria* **2017**, *19*, 19-37, https://doi.org/10.3897/natureconservation.19.12457.

Dellicour, S.; Desmecht, D.; Paternostre, J.; Malengreaux, C.; Licoppe, A.; Gilbert, M.; Linden, A. Unravelling the dispersal dynamics and ecological drivers of the African swine fever outbreak in Belgium. *J. Appl. Ecol.* **2020**, 10.1111/1365-2664.13649, https://doi.org/10.1111/1365-2664.13649.

Dellicour, S.; Lequime, S.; Vrancken, B.; Gill, M.S.; Bastide, P.; Gangavarapu, K.; Matteson, N.L.; Tan, Y.; du Plessis, L.; Fisher, A.A., et al. Epidemiological hypothesis testing using a phylogeographic and phylodynamic framework. *Nat. Commun.* **2020**, *11*, 11, https://doi.org/10.1038/s41467-020-19122-z.

Dellicour, S.; Prunier, J.G.; Piry, S.; Eioy, M.C.; Bertouille, S.; Licoppe, A.; Frantz, A.C.; Flamand, M.C. Landscape genetic analyses of *Cervus elaphus* and *Sus scrofa*: comparative study and analytical developments. *Heredity* **2019**, *123*, 228-241, https://doi.org/10.1038/s41437-019-0183-5.

Dellicour, S.; Troupin, C.; Jahanbakhsh, F.; Salama, A.; Massoudi, S.; Moghaddam, M.K.; Baele, G.; Lemey, P.; Gholami, A.; Bourhy, H. Using phylogeographic approaches to analyse the dispersal history, velocity and direction of viral lineages - Application to rabies virus spread in Iran. *Mol. Ecol.* **2019**, *28*, 4335-4350, https://doi.org/10.1111/mec.15222.

Dellicour, S.; Vrancken, B.; Trovao, N.S.; Fargette, D.; Lemey, P. On the importance of negative controls in viral landscape phylogeography. *Virus Evol.* **2018**, *4*, vey023, https://doi.org/10.1093/ve/vey023.

Devitt, T.J.; Devitt, S.E.C.; Hollingsworth, B.D.; McGuire, J.A.; Moritz, C. Montane refugia predict population genetic structure in the Large-blotched Ensatina salamander. *Mol. Ecol.* **2013**, *22*, 1650-1665, https://doi.org/10.1111/mec.12196.

Di Febbraro, M.; Menchetti, M.; Russo, D.; Ancillotto, L.; Aloise, G.; Roscioni, F.; Preatoni, D.G.; Loy, A.; Martinoli, A.; Bertolino, S., et al. Integrating climate and land-use change scenarios in modelling the future spread of invasive squirrels in Italy. *Divers. Distrib.* **2019**, *25*, 644-659, https://doi.org/10.1111/ddi.12890.

Dickson, B.G.; Albano, C.M.; McRae, B.H.; Anderson, J.J.; Theobald, D.M.; Zachmann, L.J.; Sisk, T.D.; Dombeck, M.P. Informing strategic efforts to expand and connect protected areas using a model of ecological flow, with application to the Western United States. *Conserv. Lett.* **2017**, *10*, 564-571, https://doi.org/10.1111/conl.12322.

Dickson, B.G.; Roemer, G.W.; McRae, B.H.; Rundall, J.M. Models of regional habitat quality and connectivity for pumas (*Puma concolor*) in the Southwestern United States. *PLoS One* **2013**, *8*, e81898, https://doi.org/10.1371/journal.pone.0081898.

DiLeo, M.F.; Husby, A.; Saastamoinen, M. Landscape permeability and individual variation in a dispersal-linked gene jointly determine genetic structure in the Glanville fritillary butterfly. *Evol. Lett.* **2018**, *2*, 544-556, https://doi.org/10.1002/evl3.90.

DiLeo, M.F.; Rouse, J.D.; Davila, J.A.; Lougheed, S.C. The influence of landscape on gene flow in the eastern massasauga rattlesnake (*Sistrurus c. catenatus*): insight from computer simulations. *Mol. Ecol.* **2013**, *22*, 4483-4498, https://doi.org/10.1111/mec.12411.

Dilts, T.E.; Weisberg, P.J.; Leitner, P.; Matocq, M.D.; Inman, R.D.; Nussear, K.E.; Esque, T.C. Multiscale connectivity and graph theory highlight critical areas for conservation under climate change. *Ecol. Appl.* **2016**, *26*, 1223-1237, https://doi.org/10.1890/15-0925.

Dong, X.Y.; Li, B.; He, F.Z.; Gu, Y.; Sun, M.Q.; Zhang, H.M.; Tan, L.; Xiao, W.; Liu, S.R.; Cai, Q.H. Flow directionality, mountain barriers and functional traits determine diatom metacommunity structuring of high mountain streams. *Scientific Reports* **2016**, *6*, 24711, https://doi.org/10.1038/srep24711.

Draheim, H.M.; Moore, J.A.; Fortin, M.-J.; Scribner, K.T. Beyond the snapshot: Landscape genetic analysis of time series data reveal responses of American black bears to landscape change. *Evol. Appl.* **2018**, *11*, 1219-1230, https://doi.org/10.1111/eva.12617.

Drake, J.C.; Griffis-Kyle, K.; McIntyre, N.E. Using nested connectivity models to resolve management conflicts of isolated water networks in the Sonoran Desert. *Ecosphere* **2017**, *8*, e01647, https://doi.org/10.1002/ecs2.1652.

Dudaniec, R.Y.; Rhodes, J.R.; Wilmer, J.W.; Lyons, M.; Lee, K.E.; McAlpine, C.A.; Carrick, F.N. Using multilevel models to identify drivers of landscape-genetic structure among management areas. *Mol. Ecol.* **2013**, *22*, 3752-3765, https://doi.org/10.1111/mec.12359.

Dudaniec, R.Y.; Spear, S.F.; Richardson, J.S.; Storfer, A. Current and historical drivers of landscape genetic structure differ in core and peripheral salamander populations. *PLoS One* **2012**, *7*, e36769, https://doi.org/10.1371/journal.pone.0036769.

Dudaniec, R.Y.; Wilmer, J.W.; Hanson, J.O.; Warren, M.; Bell, S.; Rhodes, J.R. Dealing with uncertainty in landscape genetic resistance models: a case of three co-occurring marsupials. *Mol. Ecol.* **2016**, *25*, 470-486, https://doi.org/10.1111/mec.13482.

Dupas, S.; Le Ru, B.; Branca, A.; Faure, N.; Gigot, G.; Campagne, P.; Sezonlin, M.; Ndemah, R.; Ong'amo, G.; Calatayud, P.A., et al. Phylogeography in continuous space: coupling species distribution models and circuit theory to assess the effect of contiguous migration at different climatic periods on genetic differentiation in *Busseola fusca* (Lepidoptera: Noctuidae). *Mol. Ecol.* **2014**, *23*, 2313-2325, https://doi.org/10.1111/mec.12730.

Dutta, T.; Sharma, S.; DeFries, R. Targeting restoration sites to improve connectivity in a tiger conservation landscape in India. *PeerJ* **2018**, *6*, e5587, https://doi.org/10.7717/peerj.5587.

Dutta, T.; Sharma, S.; McRae, B.H.; Roy, P.S.; DeFries, R. Connecting the dots: mapping habitat connectivity for tigers in central India. *Reg. Environ. Change* **2016**, *16*, 53-67, https://doi.org/10.1007/s10113-015-0877-z.

Eberle, J.; Rdder, D.; Beckett, M.; Ahrens, D. Landscape genetics indicate recently increased habitat fragmentation in African forest-associated chafers. *Global Change Biol.* **2017**, *23*, 1988-2004, https://doi.org/10.1111/gcb.13616.

Ehlers Smith, D.A.; Ehlers Smith, Y.C.; Downs, C.T. Promoting functional connectivity of anthropogenically-fragmented forest patches for multiple taxa across a critically endangered biome. *Landscape Urban Plann.* **2019**, *190*, 103579, https://doi.org/10.1016/j.landurbplan.2019.05.010.

Elmes, A.; Rogan, J.; Williams, C.; Ratick, S.; Nowak, D. Modeling the potential dispersal of Asian longhorned beetle using circuit theory. *Prof. Geogr.* **2019**, *71*, 580-594, https://doi.org/10.1080/00330124.2019.1611458.

Encinas-Viso, F.; McDonald-Spicer, C.; Knerr, N.; Thrall, P.H.; Broadhurst, L. Different landscape effects on the genetic structure of two broadly distributed woody legumes, *Acacia salicina* and *A. stenophylla* (Fabaceae). *Ecol. Evol.* **2020**, *10*, 13476-13487, https://doi.org/10.1002/ece3.6952.

Engler, J.O.; Balkenhol, N.; Filz, K.J.; Habel, J.C.; Rodder, D. Comparative landscape genetics of three closely related sympatric hesperid butterflies with diverging ecological traits. *PLoS One* **2014**, *9*, e106526, https://doi.org/10.1371/journal.pone.0106526.

Epps, C.W.; Castillo, J.A.; Schmidt-Kuentzel, A.; du Preez, P.; Stuart-Hill, G.; Jago, M.; Naidoo, R. Contrasting historical and recent gene flow among African buffalo herds in the Caprivi Strip of Namibia. *J. Hered.* **2013**, *104*, 172-181, https://doi.org/10.1093/jhered/ess142.

Epps, C.W.; Mutayoba, B.M.; Gwin, L.; Brashares, J.S. An empirical evaluation of the African elephant as a focal species for connectivity planning in East Africa. *Divers. Distrib.* **2011**, *17*, 603-612, https://doi.org/10.1111/j.1472-4642.2011.00773.x.

Epps, C.W.; Wasser, S.K.; Keim, J.L.; Mutayoba, B.M.; Brashares, J.S. Quantifying past and present connectivity illuminates a rapidly changing landscape for the African elephant. *Mol. Ecol.* **2013**, *22*, 1574-1588, https://doi.org/10.1111/mec.12198.

Errejon Gomez, J.C.; Subiros, J.V.; Flores, J.L.F.; Hernandez, H.R.; Munoz-Robles, C.A. Connectivity of ecosystems between the biosphere reserves "El Cielo" and "Sierra del Abra Tanchipa" in Mexico. *Investigaciones Geograficas-Spain* **2018**, *70*, 181-196, https://doi.org/10.14198/ingeo2018.70.09.

Espinosa, M.I.; Gouin, N.; Squeo, F.A.; López, D.; Bertin, A. Landscape connectivity among remnant populations of guanaco (*Lama guanicoe* Muller, 1776) in an arid region of Chile impacted by global change. *PeerJ* **2018**, *6*, e4429, https://doi.org/10.7717/peerj.4429.

Estrada-Carmona, N.; Martínez-Salinas, A.; DeClerck, F.A.J.; Vílchez-Mendoza, S.; Garbach, K. Managing the farmscape for connectivity increases conservation value for tropical bird species with different forest-dependencies. *J. Environ. Manage.* **2019**, *250*, 109504, https://doi.org/10.1016/j.jenvman.2019.109504.

Evans, M.J.; Rittenhouse, T.A.G.; Hawley, J.E.; Rego, P.W.; Eggert, L.S. Spatial genetic patterns indicate mechanism and consequences of large carnivore cohabitation within development. *Ecol. Evol.* **2018**, *8*, 4815-4829, https://doi.org/10.1002/ece3.4033.

Fabrizio, M.; Di Febbraro, M.; D'Amico, M.; Frate, L.; Roscioni, F.; Loy, A. Habitat suitability vs landscape connectivity determining roadkill risk at a regional scale: a case study on European badger (*Meles meles*). *Eur. J. Wildl. Res.* **2019**, *65*, 7, https://doi.org/10.1007/s10344-018-1241-7.

Fagan, M.E.; DeFries, R.S.; Sesnie, S.E.; Arroyo-Mora, J.P.; Chazdon, R.L. Targeted reforestation could reverse declines in connectivity for understory birds in a tropical habitat corridor. *Ecol. Appl.* **2016**, *26*, 1456-1474, https://doi.org/10.1890/14-2188.

Fahey, M.; Rossetto, M.; Wilson, P.D.; Ho, S.Y.W. Habitat preference differentiates the Holocene range dynamics but not barrier effects on two sympatric, congeneric trees (Tristaniopsis, Myrtaceae). *Heredity* **2019**, *123*, 532-548, https://doi.org/10.1038/s41437-019-0243-x.

Falaschi, M.; Mangiacotti, M.; Sacchi, R.; Scali, S.; Razzetti, E. Electric circuit theory applied to alien invasions: a connectivity model predicting the Balkan frog expansion in Northern Italy. *Acta Herpetol.* **2018**, *13*, 33-42, https://doi.org/10.13128/Acta\_Herpetol-20871.

Fan, F.F.; Liu, Y.X.; Chen, J.X.; Dong, J.Q. Scenario-based ecological security patterns to indicate landscape sustainability: a case study on the Qinghai-Tibet Plateau. *Landscape Ecol.* **2020**, 10.1007/s10980-020-01044-2, https://doi.org/10.1007/s10980-020-01044-2.

Fant, J.B.; Havens, K.; Keller, J.M.; Radosavljevic, A.; Yates, E.D. The influence of contemporary and historic landscape features on the genetic structure of the sand dune endemic, *Cirsium pitcheri* (Asteraceae). *Heredity* **2014**, *112*, 519-530, https://doi.org/10.1038/hdy.2013.134.

Farhadinia, M.S.; Ahmadi, M.; Sharbafi, E.; Khosravi, S.; Alinezhad, H.; Macdonald, D.W. Leveraging trans-boundary conservation partnerships: Persistence of Persian leopard (*Panthera pardus saxicolor*) in the Iranian Caucasus. *Biol. Conserv.* **2015**, *191*, 770-778, https://doi.org/10.1016/j.biocon.2015.08.027.

Favre-Bac, L.; Mony, C.; Ernoult, A.; Burel, F.; Arnaud, J.F. Ditch network sustains functional connectivity and influences patterns of gene flow in an intensive agricultural landscape. *Heredity* **2016**, *116*, 200-212, https://doi.org/10.1038/hdy.2015.90.

Fedorca, A.; Popa, M.; Jurj, R.; Ionescu, G.; Ionescu, O.; Fedorca, M. Assessing the regional landscape connectivity for multispecies to coordinate on-the-ground needs for mitigating linear infrastructure impact in Brasov - Prahova region. *J. Nat. Conserv.* **2020**, *58*, 11, https://doi.org/10.1016/j.jnc.2020.125903.

Fedorca, A.; Russo, I.R.M.; Ionescu, O.; Ionescu, G.; Popa, M.; Fedorca, M.; Curtu, A.L.; Sofletea, N.; Tabor, G.M.; Bruford, M.W. Inferring fine-scale spatial structure of the brown bear (*Ursus arctos*) population in the Carpathians prior to infrastructure development. *Scientific Reports* **2019**, *9*, 9494, https://doi.org/10.1038/s41598-019-45999-y.

Ferreira, A.S.; Lima, A.P.; Jehle, R.; Ferrao, M.; Stow, A. The influence of environmental variation on the genetic structure of a poison frog distributed across continuous Amazonian rainforest. *J. Hered.* **2020**, *111*, 457-470, https://doi.org/10.1093/jhered/esaa034.

Ferrer, E.S.; Garcia-Navas, V.; Bueno-Enciso, J.; Barrientos, R.; Serrano-Davies, E.; Caliz-Campal, C.; Sanz, J.J.; Ortego, J. The influence of landscape configuration and environment on population genetic structure in a sedentary passerine: insights from loci located in different genomic regions. *J. Evol. Biol.* **2016**, *29*, 205-219, https://doi.org/10.1111/jeb.12776.

Filz, K.J.; Engler, J.O.; Stoffels, J.; Weitzel, M.; Schmitt, T. Missing the target? A critical view on butterfly conservation efforts on calcareous grasslands in south-western Germany. *Biodivers. Conserv.* **2013**, *22*, 2223-2241, https://doi.org/10.1007/s10531-012-0413-0.

Finch, D.; Corbacho, D.P.; Schofield, H.; Davison, S.; Wright, P.G.R.; Broughton, R.K.; Mathews, F. Modelling the functional connectivity of landscapes for greater horseshoe bats Rhinolophus ferrumequinum at a local scale. *Landscape Ecol.* **2020**, *35*, 577-589, https://doi.org/10.1007/s10980-019-00953-1.

Firmiano, K.R.; Canedo-Arguelles, M.; Gutierrez-Canovas, C.; Macedo, D.R.; Linares, M.S.; Bonada, N.; Callisto, M. Land use and local environment affect macroinvertebrate metacommunity organization in Neotropical stream networks. *J. Biogeogr.* **2020**, 10.1111/jbi.14020, 13, https://doi.org/10.1111/jbi.14020.

Fischer, M.L.; Salgado, I.; Beninde, J.; Klein, R.; Frantz, A.C.; Heddergott, M.; Cullingham, C.I.; Kyle, C.J.; Hochkirch, A. Multiple founder effects are followed by range expansion and admixture during the invasion process of the raccoon (*Procyon lotor*) in Europe. *Divers. Distrib.* **2017**, *23*, 409-420, https://doi.org/10.1111/ddi.12538.

Fleishman, E.; Anderson, J.; Dickson, B.G. Single-species and mutliple-species connectivity models for large mammals on the Navajo Nation. *West. N. Am. Nat.* **2017**, *77*, 237-251.

Freeman, B.; Roehrdanz, P.R.; Peterson, A.T. Modeling endangered mammal species distributions and forest connectivity across the humid Upper Guinea lowland rainforest of West Africa. *Biodivers. Conserv.* **2019**, *28*, 671-685, https://doi.org/10.1007/s10531-018-01684-6.

Fuchs, J.; Parra, J.L.; Goodman, S.M.; Raherilalao, M.J.; Vanderwal, J.; Bowie, R.C.K. Extending ecological niche models to the past 120000 years corroborates the lack of strong phylogeographic structure in the Crested Drongo (*Dicrurus forficatus forficatus*) on Madagascar. *Biol. J. Linn. Soc.* **2013**, *108*, 658-676, https://doi.org/10.1111/j.1095-8312.2012.02022.x.

Fullman, T.J.; Wilson, R.R.; Joly, K.; Gustine, D.D.; Leonard, P.; Loya, W.M. Mapping potential effects of proposed roads on migratory connectivity for a highly mobile herbivore using circuit theory. *Ecol. Appl.* **2020**, 10.1002/eap.2207, https://doi.org/10.1002/eap.2207.

Gantchoff, M.G.; Belant, J.L. Regional connectivity for recolonizing American black bears (*Ursus americanus*) in southcentral USA. *Biol. Conserv.* **2017**, *214*, 66-75, https://doi.org/10.1016/j.biocon.2017.07.023.

Gao, J.B.; Du, F.J.; Zuo, L.Y.; Jiang, Y. Integrating ecosystem services and rocky desertification into identification of karst ecological security pattern. *Landscape Ecol.* **2020**, 10.1007/s10980-020-01100-x, https://doi.org/10.1007/s10980-020-01100-x.

Garcia, J.; Moran-Ordonez, A.; Garcia, J.T.; Calero-Riestra, M.; Alda, F.; Sanz, J.; Suarez-Seoane, S. Current landscape attributes and landscape stability in breeding grounds explain genetic differentiation in a long-distance migratory bird. *Anim. Conserv.* **2020**,, https://doi.org/10.1111/acv.12616.

Garcia, V.O.S.; Ivy, C.; Fu, J.Z. Syntopic frogs reveal different patterns of interaction with the landscape: A comparative landscape genetic study of *Pelophylax nigromaculatus* and *Fejervarya limnocharis* from central China. *Ecol. Evol.* **2017**, *7*, 9294-9306, https://doi.org/10.1002/ece3.3459.

Garcia-Rodriguez, A.; Guarnizo, C.E.; Crawford, A.J.; Garda, A.A.; Costa, G.C. Idiosyncratic responses to drivers of genetic differentiation in the complex landscapes of Isthmian Central America. *Heredity* **2020**, 10.1038/s41437-020-00376-8, 15, https://doi.org/10.1038/s41437-020-00376-8.

Garrido-Garduno, T.; Tellez-Valdes, O.; Manel, S.; Vazquez-Dominguez, E. Role of habitat heterogeneity and landscape connectivity in shaping gene flow and spatial population structure of a dominant rodent species in a tropical dry forest. *J. Zool.* **2016**, *298*, 293-302, https://doi.org/10.1111/jzo.12307.

Garroway, C.J.; Bowman, J.; Wilson, P.J. Using a genetic network to parameterize a landscape resistance surface for fishers, *Martes pennanti*. *Mol. Ecol.* **2011**, *20*, 3978-3988, https://doi.org/10.1111/j.1365-294X.2011.05243.x.

Gehara, M.; Crawford, A.J.; Orrico, V.G.D.; Rodriguez, A.; Lotters, S.; Fouquet, A.; Barrientos, L.S.; Brusquetti, F.; De la Riva, I.; Ernst, R., et al. High levels of diversity uncovered in a widespread nominal taxon: continental phylogeography of the neotropical tree frog *Dendropsophus minutus*. *PLoS One* **2014**, *9*, e103958, https://doi.org/10.1371/journal.pone.0103958.

Geue, J.C.; Vagasi, C.I.; Schweizer, M.; Pap, P.L.; Thomassen, H.A. Environmental selection is a main driver of divergence in house sparrows (*Passer domesticus*) in Romania and Bulgaria. *Ecol. Evol.* **2016**, *6*, 7954-7964, https://doi.org/10.1002/ece3.2509.

Gharehaghaji, M.; Minor, E.S.; Ashley, M.V.; Abraham, S.T.; Koenig, W.D. Effects of landscape features on gene flow of valley oaks (*Quercus lobata*). *Plant Ecol.* **2017**, *218*, 487-499, https://doi.org/10.1007/s11258-017-0705-2.

Ghoddousi, A.; Bleyhl, B.; Sichau, C.; Ashayeri, D.; Moghadas, P.; Sepahvand, P.; Hamidi, A.K.; Soofi, M.; Kuemmerle, T. Mapping connectivity and conflict risk to identify safe corridors for the Persian leopard. *Landscape Ecol.* **2020**, *35*, 1809-1825, https://doi.org/10.1007/s10980-020-01062-0.

Giarla, T.C.; Maher, S.P.; Achmadi, A.S.; Moore, M.K.; Swanson, M.T.; Rowe, K.C.; Esselstyn, J.A. Isolation by marine barriers and climate explain areas of endemism in an island rodent. *J. Biogeogr.* **2018**, *45*, 2053-2066, https://doi.org/10.1111/jbi.13392.

Gimona, A.; Poggio, L.; Brown, I.; Castellazzi, M. Woodland networks in a changing climate: Threats from land use change. *Biol. Conserv.* **2012**, *149*, 93-102, https://doi.org/10.1016/j.biocon.2012.01.060.

González-Serna, M.J.; Cordero, P.J.; Ortego, J. Using high-throughput sequencing to investigate the factors structuring genomic variation of a Mediterranean grasshopper of great conservation concern. *Scientific Reports* **2018**, *8*, 13436, https://doi.org/10.1038/s41598-018-31775-x.

Goretskaia, M.I.; Beme, I.R.; Popova, D.V.; Amos, N.; Buchanan, K.L.; Sunnucks, P.; Pavlova, A. Song parameters of the fuscous honeyeater *Lichenostomus fuscus* correlate with habitat characteristics in fragmented landscapes. *J. Avian Biol.* **2018**, *49*, e01493, https://doi.org/10.1111/jav.01493.

Goudarzi, F.; Hemami, M.R.; Rancilhac, L.; Malekian, M.; Fakheran, S.; Elmer, K.R.; Steinfartz, S. Geographic separation and genetic differentiation of populations are not coupled with niche differentiation in threatened Kaiser's spotted newt (*Neurergus kaiseri*). *Scientific Reports* **2019**, *9*, 6239, https://doi.org/10.1038/s41598-019-41886-8.

Goulson, D.; Kaden, J.C.; Lepais, O.; Lye, G.C.; Darvill, B. Population structure, dispersal and colonization history of the garden bumblebee *Bombus hortorum* in the Western Isles of Scotland. *Conserv. Genet.* **2011**, *12*, 867-879, https://doi.org/10.1007/s10592-011-0190-4.

Grafius, D.R.; Corstanje, R.; Siriwardena, G.M.; Plummer, K.E.; Harris, J.A. A bird's eye view: using circuit theory to study urban landscape connectivity for birds. *Landscape Ecol.* **2017**, *32*, 1771-1787, https://doi.org/10.1007/s10980-017-0548-1.

Grafius, D.R.; Corstanje, R.; Warren, P.H.; Evans, K.L.; Norton, B.A.; Siriwardena, G.M.; Pescott, O.L.; Plummer, K.E.; Mears, M.; Zawadzka, J., et al. Using GIS-linked Bayesian Belief Networks as a tool for modelling urban biodiversity. *Landscape Urban Plann.* **2019**, *189*, 382-395, https://doi.org/10.1016/j.landurbplan.2019.05.012.

Grasty, M.R.; Thompson, P.G.; Hendrickson, E.C.; Pheil, A.E.; Cruzan, M.B. Fine-scale habitat heterogeneity and vole runways influence seed dispersal in *Plagiobothrys nothofulvus*. *Am. J. Bot.* **2020**, *107*, 413-422, https://doi.org/10.1002/ajb2.1433.

Graves, R.A.; Williamson, M.A.; Belote, R.T.; Brandt, J.S. Quantifying the contribution of conservation easements to large-landscape conservation. *Biol. Conserv.* **2019**, *232*, 83-96, https://doi.org/10.1016/j.biocon.2019.01.024.

Gray, M.E.; Dickson, B.G. Applying fire connectivity and centrality measures to mitigate the cheatgrass-fire cycle in the arid West, USA. *Landscape Ecol.* **2016**, *31*, 1681-1696, https://doi.org/10.1007/s10980-016-0353-2.

Gray, M.E.; Dickson, B.G. A new model of landscape-scale fire connectivity applied to resource and fire management in the Sonoran Desert, USA. *Ecol. Appl.* **2015**, *25*, 1099-1113, https://doi.org/10.1890/14-0367.1.

Gray, M.E.; Dickson, B.G.; Nussear, K.E.; Esque, T.C.; Chang, T. A range-wide model of contemporary, omnidirectional connectivity for the threatened Mojave desert tortoise. *Ecosphere* **2019**, *10*, e02847, https://doi.org/10.1002/ecs2.2847.

Gryseels, S.; Baird, S.J.E.; Borremans, B.; Makundi, R.; Leirs, H.; de Bellocq, J.G. When viruses don't go viral: the importance of host phylogeographic structure in the spatial spread of arenaviruses. *PLoS Path.* **2017**, *13*, e1006073, https://doi.org/10.1371/journal.ppat.1006073.

Gryseels, S.; de Bellocq, J.G.; Makundi, R.; Vanmechelen, K.; Broeckhove, J.; Mazoch, V.; Sumbera, R.; Zima, J.; Leirs, H.; Baird, S.J.E. Genetic distinction between contiguous urban and rural multimammate mice in Tanzania despite gene flow. *J. Evol. Biol.* **2016**, *29*, 1952-1967, https://doi.org/10.1111/jeb.12919.

Guarnizo, C.E.; Cannatella, D.C. Genetic divergence within frog species is greater in topographically more complex regions. *J. Zool. Syst. Evol. Res.* **2013**, *51*, 333-340, https://doi.org/10.1111/jzs.12027.

Guerrero, J.; Byrne, A.W.; Lavery, J.; Presho, E.; Kelly, G.; Courcier, E.A.; O'Keeffe, J.; Fogarty, U.; O'Meara, D.B.; Ensing, D., et al. The population and landscape genetics of the European badger (*Meles meles*) in Ireland. *Ecol. Evol.* **2018**, *8*, 10233-10246, https://doi.org/10.1002/ece3.4498.

Guiller, C.; Affre, L.; Deschamps-Cottin, M.; Geslin, B.; Kaldonski, N.; Tatoni, T. Impacts of solar energy on butterfly communities in mediterranean agro-ecosystems. *Environ. Prog. Sustain. Energy* **2017**, *36*, 1817-1823, https://doi.org/10.1002/ep.12626.

Guzman-Colon, D.K.; Pidgeon, A.M.; Martinuzzi, S.; Radeloff, V.C. Conservation planning for island nations: Using a network analysis model to find novel opportunities for landscape connectivity in Puerto Rico. *Glob. Ecol. Conserv.* **2020**, *23*, https://doi.org/10.1016/j.gecco.2020.e01075.

Haase, C.G.; Fletcher, R.J.; Slone, D.H.; Reid, J.P.; Butler, S.M. Landscape complementation revealed through bipartite networks: an example with the Florida manatee. *Landscape Ecol.* **2017**, *32*, 1999-2014, https://doi.org/10.1007/s10980-017-0560-5.

Habibzadeh, N.; Ashrafzadeh, M.R. Habitat suitability and connectivity for an endangered brown bear population in the Iranian Caucasus. *Wildl. Res.* **2018**, *45*, 602-610, https://doi.org/10.1071/wr17175.

Hagerty, B.E.; Nussear, K.E.; Esque, T.C.; Tracy, C.R. Making molehills out of mountains: landscape genetics of the Mojave desert tortoise. *Landscape Ecol.* **2011**, *26*, 267-280, https://doi.org/10.1007/s10980-010-9550-6.

Hamilton, C.M.; Bateman, B.L.; Gorzo, J.M.; Reid, B.; Thogmartin, W.E.; Peery, M.Z.; Heglund, P.J.; Radeloff, V.C.; Pidgeon, A.M. Slow and steady wins the race? Future climate and land use change leaves the imperiled Blanding's turtle (*Emydoidea blandingii*) behind. *Biol. Conserv.* **2018**, *222*, 75-85, https://doi.org/10.1016/j.biocon.2018.03.026.

Han, Q.; Keefe, G. Mapping the flow of forest migration through the city under climate change. *Urban Plan.* **2019**, *4*, 139-151.

Hanson, J.O.; Verissimo, A.; Velo-Anton, G.; Marques, A.; Camacho-Sanchez, M.; Martinez-Solano, I.; Goncalves, H.; Sequeira, F.; Possingham, H.P.; Carvalho, S.B. Evaluating surrogates of genetic diversity for conservation planning. *Conserv. Biol.* **2020**,, https://doi.org/10.1111/cobi.13602.

Harihar, A.; Chanchani, P.; Borah, J.; Crouthers, R.J.; Darman, Y.; Gray, T.N.E.; Mohamad, S.; Rawson, B.M.; Rayan, M.D.; Roberts, J.L., et al. Recovery planning towards doubling wild tiger *Panthera tigris* numbers: Detailing 18 recovery sites from across the range. *PLoS One* **2018**, *13*, e0207114, https://doi.org/10.1371/journal.pone.0207114.

Harihar, A.; Ghosh-Harihar, M.; MacMillan, D.C. Losing time for the tiger *Panthera tigris*: delayed action puts a globally threatened species at risk of local extinction. *Oryx* **2018**, *52*, 78-88, https://doi.org/10.1017/s0030605317001156.

Harradine, E.L.; Andrew, M.E.; Thomas, J.W.; How, R.A.; Schmitt, L.H.; Spencer, P.B.S. Importance of dispersal routes that minimize open-ocean movement to the genetic structure of island populations. *Conserv. Biol.* **2015**, *29*, 1704-1714, https://doi.org/10.1111/cobi.12555.

Harrisson, K.A.; Pavlova, A.; Amos, J.N.; Radford, J.Q.; Sunnucks, P. Does reduced mobility through fragmented landscapes explain patch extinction patterns for three honeyeaters? *J. Anim. Ecol.* **2014**, *83*, 616-627, https://doi.org/10.1111/1365-2656.12172.

Harrisson, K.A.; Pavlova, A.; Amos, J.N.; Takeuchi, N.; Lill, A.; Radford, J.Q.; Sunnucks, P. Disrupted fine-scale population processes in fragmented landscapes despite large-scale genetic connectivity for a widespread and common cooperative breeder: the superb fairy-wren (*Malurus cyaneus*). *J. Anim. Ecol.* **2013**, *82*, 322-333, https://doi.org/10.1111/1365-2656.12007.

Hauser, S.S.; Leberg, P.L. Riparian areas potentially provide crucial corridors through fragmented landscape for black-capped vireo (*Vireo atricapilla*) source-sink system. *Conserv. Genet.* **2020**, 10.1007/s10592-020-01314-1, https://doi.org/10.1007/s10592-020-01314-1.

He, Q.X.; Edwards, D.L.; Knowles, L.L. Integrative testing of how environments from the past to the present shape genetic structure across landscapes. *Evolution* **2013**, *67*, 3386-3402, https://doi.org/10.1111/evo.12159.

Heringer, G.; Thiele, J.; do Amaral, C.H.; Meira-Neto, J.A.A.; Matos, F.A.R.; Lehmann, J.R.K.; Buttschardt, T.K.; Neri, A.V. Acacia invasion is facilitated by landscape permeability: The role of habitat degradation and road networks. *Applied Vegetation Science* **2020**, *23*, 598-609, https://doi.org/10.1111/avsc.12520.

Herrera-Perez, J.; Parra, J.L.; Restrepo-Santamaria, D.; Jimenez-Segura, L.F. The influence of abiotic environment and connectivity on the distribution of diversity in an Andean fish fluvial network. *Front. Environ. Sci.* **2019**, *7*, Art 9, https://doi.org/10.3389/fenvs.2019.00009.

Hohnen, R.; Tuft, K.D.; Legge, S.; Hillyer, M.; Spencer, P.B.S.; Radford, I.J.; Johnson, C.N.; Burridge, C.P. Rainfall and topography predict gene flow among populations of the declining northern quoll (*Dasyurus hallucatus*). *Conserv. Genet.* **2016**, *17*, 1213-1228, https://doi.org/10.1007/s10592-016-0856-z.

Holmes, I.A.; Mautz, W.J.; Rabosky, A.R.D. Historical environment is reflected in modern population genetics and biogeography of an island endemic lizard (*Xantusia riversiana reticulata*). *PLoS One* **2016**, *11*, e0163738, https://doi.org/10.1371/journal.pone.0163738.

Honeck, E.; Moilanen, A.; Guinaudeau, B.; Wyler, N.; Schlaepfer, M.A.; Martin, P.; Sanguet, A.; Urbina, L.; von Arx, B.; Massy, J., et al. Implementing green infrastructure for the spatial planning of peri-urban areas in Geneva, Switzerland. *Sustainability* **2020**, *12*, 1387, https://doi.org/10.3390/su12041387.

Hosseini, M.; Farashi, A.; Khani, A.; Farhadinia, M.S. Landscape connectivity for mammalian megafauna along the Iran-Turkmenistan-Afghanistan borderland. *J. Nat. Conserv.* **2019**, *52*, 125735, https://doi.org/10.1016/j.jnc.2019.125735.

Howey, M.C.L. Multiple pathways across past landscapes: circuit theory as a complementary geospatial method to least cost path for modeling past movement. *J. Archaeol. Sci.* **2011**, *38*, 2523-2535, https://doi.org/10.1016/j.jas.2011.03.024.

Howey, M.C.L.; Burg, M.B. Assessing the state of archaeological GIS research: Unbinding analyses of past landscapes. *J. Archaeol. Sci.* **2017**, *84*, 1-9, https://doi.org/10.1016/j.jas.2017.05.002.

Huang, C.; Li, X.; Khanal, L.; Jiang, X. Habitat suitability and connectivity inform a co-management policy of protected area network for Asian elephants in China. *PeerJ* **2019**, *7*, e6791, https://doi.org/10.7717/peerj.6791.

Huang, J.M.; Hu, Y.C.; Zheng, F.Y. Research on recognition and protection of ecological security patterns based on circuit theory: a case study of Jinan City. *Environ. Sci. Pollut. Res.* **2020**, 10.1007/s11356-020-07764-x, https://doi.org/10.1007/s11356-020-07764-x.

Hutchison, N.L.; Lance, R.F.; Pekins, C.E.; Noble, M.E.; Leberg, P.L. Influence of geomorphology and surface features on the genetic structure of an important trogloxene, the secret cave cricket (*Ceuthophilus secretus*). *Conserv. Genet.* **2016**, *17*, 969-983, https://doi.org/10.1007/s10592-016-0836-3.

Ihlow, F.; Bonke, R.; Hartmann, T.; Geissler, P.; Behler, N.; Rodder, D. Habitat suitability, coverage by protected areas and population connectivity for the Siamese crocodile *Crocodylus siamensis* Schneider, 1801. *Aquat. Conserv.: Mar. Freshwat. Ecosyst.* **2015**, *25*, 544-554, https://doi.org/10.1002/aqc.2473.

Jackson, C.R.; Marnewick, K.; Lindsey, P.A.; Roskaft, E.; Robertson, M.P. Evaluating habitat connectivity methodologies: a case study with endangered African wild dogs in South Africa. *Landscape Ecol.* **2016**, *31*, 1433-1447, https://doi.org/10.1007/s10980-016-0342-5.

Jackson, J.M.; Pimsler, M.L.; Oyen, K.J.; Koch-Uhuad, J.B.; Herndon, J.D.; Strange, J.P.; Dillon, M.E.; Lozier, J.D. Distance, elevation and environment as drivers of diversity and divergence in bumble bees across latitude and altitude. *Mol. Ecol.* **2018**, *27*, 2926-2942, https://doi.org/10.1111/mec.14735.

Jacobsen, C.D.; Brown, D.J.; Flint, W.D.; Pauley, T.K.; Buhlmann, K.A.; Mitchell, J.C. Vulnerability of high-elevation endemic salamanders to climate change: A case study with the Cow Knob Salamander (*Plethodon punctatus*). *Glob. Ecol. Conserv.* **2020**, *21*, e00883, https://doi.org/10.1016/j.gecco.2019.e00883.

Jaffé, R.; Castilla, A.; Pope, N.; Imperatriz-Fonseca, V.L.; Metzger, J.P.; Arias, M.C.; Jha, S. Landscape genetics of a tropical rescue pollinator. *Conserv. Genet.* **2016**, *17*, 267-278, https://doi.org/10.1007/s10592-015-0779-0.

Jaffé, R.; Pope, N.; Acosta, A.L.; Alves, D.A.; Arias, M.C.; De la Rua, P.; Francisco, F.O.; Giannini, T.C.; Gonzalez-Chaves, A.; Imperatriz-Fonseca, V.L., et al. Beekeeping practices and geographic distance, not land use, drive gene flow across tropical bees. *Mol. Ecol.* **2016**, *25*, 5345-5358, https://doi.org/10.1111/mec.13852.

Jaffé, R.; Prous, X.; Calux, A.; Gastauer, M.; Nicacio, G.; Zampaulo, R.; Souza-Filho, P.W.M.; Oliveira, G.; Brandi, I.V.; Siqueira, J.O. Conserving relics from ancient underground worlds: assessing the influence of cave and landscape features on obligate iron cave dwellers from the Eastern Amazon. *PeerJ* **2018**, *6*, e4531, https://doi.org/10.7717/peerj.4531.

Jaffé, R.; Veiga, J.C.; Pope, N.S.; Lanes, E.C.M.; Carvalho, C.S.; Alves, R.; Andrade, S.C.S.; Arias, M.C.; Bonatti, V.; Carvalho, A.T., et al. Landscape genomics to the rescue of a tropical bee threatened by habitat loss and climate change. *Evol. Appl.* **2019**, *12*, 1164-1177, https://doi.org/10.1111/eva.12794.

Jahel, C.; Lenormand, M.; Seck, I.; Apolloni, A.; Toure, I.; Faye, C.; Sall, B.; Lo, M.; Diaw, C.S.; Lancelot, R., et al. Mapping livestock movements in Sahelian Africa. *Scientific Reports* **2020**, *10*, 8339, https://doi.org/10.1038/s41598-020-65132-8.

Jarchow, C.J.; Hossack, B.R.; Sigafus, B.H.; Schwalbe, C.R.; Muths, E. Modeling habitat connectivity to inform reintroductions: a case study with the Chiricahua leopard frog. *J. Herpetol.* **2016**, *50*, 63-69, https://doi.org/10.1670/14-172.

Jennings, M.; Haeuser, E.; Foote, D.; Lewison, R.; Conlisk, E. Planning for dynamic connectivity: Operationalizing robust decision-making and prioritization across landscapes experiencing climate and land-use change. *Land* **2020**, *9*, https://doi.org/10.3390/land9100341.

Jewitt, D.; Goodman, P.S.; Erasmus, B.F.N.; O'Connor, T.G.; Witkowski, E.T.F. Planning for the maintenance of floristic diversity in the face of land cover and climate change. *Environ. Manage.* **2017**, *59*, 792-806, https://doi.org/10.1007/s00267-017-0829-0.

Jha, S. Contemporary human-altered landscapes and oceanic barriers reduce bumble bee gene flow. *Mol. Ecol.* **2015**, *24*, 993-1006, https://doi.org/10.1111/mec.13090.

Jha, S.; Kremen, C. Urban land use limits regional bumble bee gene flow. *Mol. Ecol.* **2013**, *22*, 2483-2495, https://doi.org/10.1111/mec.12275.

Jiang, S.; Luo, M.X.; Gao, R.H.; Zhang, W.; Yang, Y.Z.; Li, Y.J.; Liao, P.C. Isolation-by-environment as a driver of genetic differentiation among populations of the only broad-leaved evergreen shrub *Ammopiptanthus mongolicus* in Asian temperate deserts. *Scientific Reports* **2019**, *9*, 12008, https://doi.org/10.1038/s41598-019-48472-y.

Johnson, J.S.; Gaddis, K.D.; Cairns, D.M.; Konganti, K.; Krutovsky, K.V. Landscape genomic insights into the historic migration of mountain hemlock in response to Holocene climate change. *Am. J. Bot.* **2017**, *104*, 439-450, https://doi.org/10.3732/ajb.1600262.

Joshi, A.; Vaidyanathan, S.; Mondol, S.; Edgaonkar, A.; Ramakrishnan, U. Connectivity of tiger (*Panthera tigris*) populations in the human-influenced forest mosaic of central India. *PLoS One* **2013**, *8*, e77980, https://doi.org/10.1371/journal.pone.0077980.

Kabir, M.; Hameed, S.; Ali, H.; Bosso, L.; Din, J.U.; Bischof, R.; Redpath, S.; Nawaz, M.A. Habitat suitability and movement corridors of grey wolf (*Canis lupus*) in Northern Pakistan. *PLoS One* **2017**, *12*, e0187027, https://doi.org/10.1371/journal.pone.0187027.

Kaliontzopoulou, A.; Pinho, C.; Martinez-Freiria, F. Where does diversity come from? Linking geographical patterns of morphological, genetic, and environmental variation in wall lizards. *BMC Evol. Biol.* **2018**, *18*, 124, https://doi.org/10.1186/s12862-018-1237-7.

Kanine, J.M.; Kierepka, E.M.; Castleberry, S.B.; Mengak, M.T.; Nibbelink, N.P.; Glenn, T.C. Influence of landscape heterogeneity on the functional connectivity of Allegheny woodrats (*Neotoma magister*) in Virginia. *Conserv. Genet.* **2018**, *19*, 1259-1268, https://doi.org/10.1007/s10592-018-1093-4.

Karlson, M.; Seiler, A.; Mortberg, U. The effect of fauna passages and landscape characteristics on barrier mitigation success. *Ecol. Eng.* **2017**, *105*, 211-220, https://doi.org/10.1016/j.ecoleng.2017.04.059.

Keeley, A.T.H.; Beier, P.; Keeley, B.W.; Fagan, M.E. Habitat suitability is a poor proxy for landscape connectivity during dispersal and mating movements. *Landscape Urban Plann.* **2017**, *161*, 90-102, https://doi.org/10.1016/j.landurbplan.2017.01.007.

Keighley, M.V.; Langmore, N.E.; Penalba, J.V.; Heinsohn, R. Modelling dispersal in a large parrot: a comparison of landscape resistance models with population genetics and vocal dialect patterns. *Landscape Ecol.* **2020**, *35*, 129-144, https://doi.org/10.1007/s10980-019-00938-0.

Kershenbaum, A.; Blank, L.; Sinai, I.; Merila, J.; Blaustein, L.; Templeton, A.R. Landscape influences on dispersal behaviour: a theoretical model and empirical test using the fire salamander, *Salamandra infraimmaculata*. *Oecologia* **2014**, *175*, 509-520, https://doi.org/10.1007/s00442-014-2924-8.

Khimoun, A.; Peterman, W.; Eraud, C.; Faivre, B.; Navarro, N.; Garnier, S. Landscape genetic analyses reveal fine-scale effects of forest fragmentation in an insular tropical bird. *Mol. Ecol.* **2017**, *26*, 4906-4919, https://doi.org/10.1111/mec.14233.

Khosravi, R.; Hemami, M.R.; Malekian, M.; Silva, T.L.; Rezaei, H.R.; Brito, J.C. Effect of landscape features on genetic structure of the goitered gazelle (*Gazella subgutturosa*) in Central Iran. *Conserv. Genet.* **2018**, *19*, 323-336, https://doi.org/10.1007/s10592-017-1002-2.

Kierepka, E.M.; Anderson, S.J.; Swihart, R.K.; Rhodes, O.E. Evaluating the influence of life-history characteristics on genetic structure: a comparison of small mammals inhabiting complex agricultural landscapes. *Ecol. Evol.* **2016**, *6*, 6376-6396, https://doi.org/10.1002/ece3.2269.

Kierepka, E.M.; Juarez, R.; Turner, K.; Smith, J.; Hamilton, M.; Lyons, P.; Hall, M.A.; Beasley, J.C.; Rhodes, O.E. Population genetics of invasive brown tree snakes (*Boiga irregularis*) on Guam, USA. *Herpetologica* **2019**, *75*, 208-217, https://doi.org/10.1655/d-18-00057.

Kimmig, S.E.; Beninde, J.; Brandt, M.; Schleimer, A.; Kramer-Schadt, S.; Hofer, H.; Borner, K.; Schulze, C.; Wittstatt, U.; Heddergott, M., et al. Beyond the landscape: Resistance modelling infers physical and behavioural gene flow barriers to a mobile carnivore across a metropolitan area. *Mol. Ecol.* **2020**, *29*, 466-484, https://doi.org/10.1111/mec.15345.

Kingston, S.E.; Navarro-Siguenza, A.; Garcia-Trejo, E.A.; Vazquez-Miranda, H.; Fagan, W.F.; Braun, M.J. Genetic differentiation and habitat connectivity across towhee hybrid zones in Mexico. *Evol. Ecol.* **2014**, *28*, 277-297, https://doi.org/10.1007/s10682-013-9673-8.

Klinga, P.; Mikolas, M.; Smolko, P.; Tejkal, M.; Hoglund, J.; Paule, L. Considering landscape connectivity and gene flow in the Anthropocene using complementary landscape genetics and habitat modelling approaches. *Landscape Ecol.* **2019**, *34*, 521-536, https://doi.org/10.1007/s10980-019-00789-9.

Klinga, P.; Smolko, P.; Krajmerova, D.; Paule, L. Landscape genetics highlight the importance of sustainable management in European mountain spruce forests: a case study on Western capercaillie. *Eur. J. For. Res.* **2017**, *136*, 1041-1050, https://doi.org/10.1007/s10342-017-1034-7.

Klug, P.E.; Wisely, S.M.; With, K.A. Population genetic structure and landscape connectivity of the Eastern Yellowbelly Racer (*Coluber constrictor flaviventris*) in the contiguous tallgrass prairie of northeastern Kansas, USA. *Landscape Ecol.* **2011**, *26*, 281-294, https://doi.org/10.1007/s10980-010-9554-2.

Knick, S.T.; Hanser, S.E.; Preston, K.L. Modeling ecological minimum requirements for distribution of greater sage-grouse leks: implications for population connectivity across their western range, USA. *Ecol. Evol.* **2013**, *3*, 1539-1551, https://doi.org/10.1002/ece3.557.

Koch, J.B.; Vandame, R.; Merida-Rivas, J.; Sagot, P.; Strange, J. Quaternary climate instability is correlated with patterns of population genetic variability in *Bombus huntii*. *Ecol. Evol.* **2018**, *8*, 7849-7864, https://doi.org/10.1002/ece3.4294.

Koen, E.L.; Bowman, J.; Garroway, C.J.; Mills, S.C.; Wilson, P.J. Landscape resistance and American marten gene flow. *Landscape Ecol.* **2012**, *27*, 29-43, https://doi.org/10.1007/s10980-011-9675-2.

Koen, E.L.; Bowman, J.; Sadowski, C.; Walpole, A.A. Landscape connectivity for wildlife: development and validation of multispecies linkage maps. *Methods Ecol. Evol.* **2014**, *5*, 626-633, https://doi.org/10.1111/2041-210x.12197.

Koen, E.L.; Bowman, J.; Walpole, A.A. The effect of cost surface parameterization on landscape resistance estimates. *Molec. Ecol. Resour.* **2012**, *12*, 686-696, https://doi.org/10.1111/j.1755-0998.2012.03123.x.

Koen, E.L.; Ellington, E.H.; Bowman, J. Mapping landscape connectivity for large spatial extents. *Landscape Ecol.* **2019**, *34*, 2421-2433, https://doi.org/10.1007/s10980-019-00897-6.

Koen, E.L.; Garroway, C.J.; Wilson, P.J.; Bowman, J. The effect of map boundary on estimates of landscape resistance to animal movement. *PLoS One* **2010**, *5*, e11785, https://doi.org/10.1371/journal.pone.0011785.

Koen, E.L.; Tosa, M.I.; Nielsen, C.K.; Schauber, E.M. Does landscape connectivity shape local and global social network structure in white-tailed deer? *PLoS One* **2017**, *12*, e0173570, https://doi.org/10.1371/journal.pone.0173570.

Koenig, W.D.; Knops, J.M.H.; Pesendorfer, M.B.; Zaya, D.N.; Ashley, M.V. Drivers of synchrony of acorn production in the valley oak (*Quercus lobata*) at two spatial scales. *Ecology* **2017**, *98*, 3056-3062, https://doi.org/10.1002/ecy.2010.

Kohut, L.E. A multidirectional model for studying mobility affordance of past landscapes. *J. Archaeol. Sci. Rep.* **2018**, *19*, 239-247, https://doi.org/10.1016/j.jasrep.2018.02.031.

Kozakiewicz, C.P.; Burridge, C.P.; Funk, W.C.; Salerno, P.E.; Trumbo, D.R.; Gagne, R.B.; Boydston, E.E.; Fisher, R.N.; Lyren, L.M.; Jennings, M.K., et al. Urbanization reduces genetic connectivity in bobcats (*Lynx rufus*) at both intra- and interpopulation spatial scales. *Mol. Ecol.* **2019**, *28*, 5068-5085, https://doi.org/10.1111/mec.15274.

Kozakiewicz, C.P.; Carver, S.; Austin, J.J.; Shephard, J.M.; Burridge, C.P. Intrinsic factors drive spatial genetic variation in a highly vagile species, the wedge-tailed eagle Aquila audax, in Tasmania. *J. Avian Biol.* **2017**, *48*, 1025-1034, https://doi.org/10.1111/jav.01326.

Kozakiewicz, C.P.; Ricci, L.; Patton, A.H.; Stahlke, A.R.; Hendricks, S.A.; Margres, M.J.; Ruiz-Aravena, M.; Hamilton, D.G.; Hamede, R.; McCallum, H., et al. Comparative landscape genetics reveals differential effects of environment on host and pathogen genetic structure in Tasmanian devils (*Sarcophilus harrisii*) and their transmissible tumour. *Mol. Ecol.* **2020**, *29*, 3217-3233, https://doi.org/10.1111/mec.15558.

Kutanan, W.; Kampuansai, J.; Srikummool, M.; Kangwanpong, D.; Ghirotto, S.; Brunelli, A.; Stoneking, M. Complete mitochondrial genomes of Thai and Lao populations indicate an ancient origin of Austroasiatic groups and demic diffusion in the spread of Tai-Kadai languages. *Hum. Genet.* **2017**, *136*, 85-98, https://doi.org/10.1007/s00439-016-1742-y.

Laenen, L.; Dellicour, S.; Vergote, V.; Nauwelaers, I.; De Coster, S.; Verbeeck, I.; Vanmechelen, B.; Lemey, P.; Maes, P. Spatio-temporal analysis of Nova virus, a divergent hantavirus circulating in the European mole in Belgium. *Mol. Ecol.* **2016**, *25*, 5994-6008, https://doi.org/10.1111/mec.13887.

Laenen, L.; Vergote, V.; Vanmechelen, B.; Tersago, K.; Baele, G.; Lemey, P.; Leirs, H.; Dellicour, S.; Vrancken, B.; Maes, P. Identifying the patterns and drivers of *Puumala hantavirus* enzootic dynamics using reservoir sampling. *Virus Evol.* **2019**, *5*, vez009, https://doi.org/10.1093/ve/vez009.

Laliberte, J.; St-Laurent, M.H. Validation of functional connectivity modeling: The Achilles' heel of landscape connectivity mapping. *Landscape Urban Plann.* **2020**, *202*, https://doi.org/10.1016/j.landurbplan.2020.103878.

Landaverde-Gonzalez, P.; Baltz, L.M.; Escobedo-Kenefic, N.; Merida, J.; Paxton, R.J.; Husemann, M. Recent low levels of differentiation in the native *Bombus ephippiatus* (Hymenoptera: Apidae) along two Neotropical mountain-ranges in Guatemala. *Biodivers. Conserv.* **2018**, *27*, 3513-3531, https://doi.org/10.1007/s10531-018-1612-0.

Landaverde-Gonzalez, P.; Enriquez, E.; Ariza, M.; Murray, T.; Paxton, R.J.; Husemann, M. Fragmentation in the clouds ? The population genetics of the native bee *Partamona bilineata* (Hymenoptera: Apidae: Meliponini) in the cloud forests of Guatemala. *Conserv. Genet.* **2017**, *18*, 631-643, https://doi.org/10.1007/s10592-017-0950-x.

Lander, T.A.; Klein, E.K.; Stoeckel, S.; Mariette, S.; Musch, B.; Oddou-Muratorio, S. Interpreting realized pollen flow in terms of pollinator travel paths and land-use resistance in heterogeneous landscapes. *Landscape Ecol.* **2013**, *28*, 1769-1783, https://doi.org/10.1007/s10980-013-9920-y.

Lanes, E.C.; Pope, N.S.; Alves, R.; Carvalho, N.M.; Giannini, T.C.; Giulietti, A.M.; Imperatriz-Fonseca, V.L.; Monteiro, W.; Oliveira, G.; Silva, A.R., et al. Landscape genomic conservation assessment of a narrow-endemic and a widespread morning glory From Amazonian savannas. *Front. Plant. Sci.* **2018**, *9*, 532, https://doi.org/10.3389/fpls.2018.00532.

Langen, T.A.; Gunson, K.E.; Jackson, S.D.; Smith, D.J.; Ruediger, W. *Planning and designing mitigation of road effects on small animals*; Johns Hopkins Univ Press: Baltimore, 2015; Vol. Chapter 8, pp. 146-176.

Lanier, H.C.; Massatti, R.; He, Q.X.; Olson, L.E.; Knowles, L.L. Colonization from divergent ancestors: glaciation signatures on contemporary patterns of genomic variation in Collared Pikas (*Ochotona collaris*). *Mol. Ecol.* **2015**, *24*, 3688-3705, https://doi.org/10.1111/mec.13270.

LaPoint, S.; Gallery, P.; Wikelski, M.; Kays, R. Animal behavior, cost-based corridor models, and real corridors. *Landscape Ecol.* **2013**, *28*, 1615-1630, https://doi.org/10.1007/s10980-013-9910-0.

Larison, B.; Kaelin, C.B.; Harrigan, R.; Henegar, C.; Rubenstein, D.I.; Kamath, P.; Aschenborn, O.; Smith, T.B.; Barsh, G.S. Population structure, inbreeding and stripe pattern abnormalities in plains zebras. *Mol. Ecol.* **2020**, 10.1111/mec.15728, https://doi.org/10.1111/mec.15728.

Lawler, J.J.; Ruesch, A.S.; Olden, J.D.; McRae, B.H. Projected climate-driven faunal movement routes. *Ecol. Lett.* **2013**, *16*, 1014-1022, https://doi.org/10.1111/ele.12132.

Lawson, L.P. Diversification in a biodiversity hot spot: landscape correlates of phylogeographic patterns in the African spotted reed frog. *Mol. Ecol.* **2013**, *22*, 1947-1960, https://doi.org/10.1111/mec.12229.

Lechner, A.M.; Doerr, V.; Harris, R.M.B.; Doerr, E.; Lefroy, E.C. A framework for incorporating fine-scale dispersal behaviour into biodiversity conservation planning. *Landscape Urban Plann.* **2015**, *141*, 11-23, https://doi.org/10.1016/j.landurbplan.2015.04.008.

Lechner, A.M.; Harris, R.M.S.; Doerr, V.; Doerr, E.; Drielsma, M.; Lefroy, E.C. From static connectivity modelling to scenario-based planning at local and regional scales. *J. Nat. Conserv.* **2015**, *28*, 78-88, https://doi.org/10.1016/j.jnc.2015.09.003.

Lechner, A.M.; Sprod, D.; Carter, O.; Lefroy, E.C. Characterising landscape connectivity for conservation planning using a dispersal guild approach. *Landscape Ecol.* **2017**, *32*, 99-113, https://doi.org/10.1007/s10980-016-0431-5.

Ledo, R.M.D.; Domingos, F.M.C.B.; Giugliano, L.G.; Sites, J.W., Jr.; Werneck, F.P.; Colli, G.R. Pleistocene expansion and connectivity of mesic forests inside the South American Dry Diagonal supported by the phylogeography of a small lizard. *Evolution* **2020**, 10.1111/evo.13978, https://doi.org/10.1111/evo.13978.

Lee-Yaw, J.A.; Davidson, A.; McRae, B.H.; Green, D.M. Do landscape processes predict phylogeographic patterns in the wood frog? *Mol. Ecol.* **2009**, *18*, 1863-1874, https://doi.org/10.1111/j.1365-294X.2009.04152.x.

Leimbach-Maus, H.B.; McCluskey, E.M.; Locher, A.; Parks, S.R.; Partridge, C.G. Genetic structure of invasive Baby's breath (*Gypsophila paniculata l*.) populations in a Michigan dune system. *Plants-Basel* **2020**, *9*, https://doi.org/10.3390/plants9091123.

Leonard, P.B.; Sutherland, R.W.; Baldwin, R.F.; Fedak, D.A.; Carnes, R.G.; Montgomery, A.P. Landscape connectivity losses due to sea level rise and land use change. *Anim. Conserv.* **2017**, *20*, 80-90, https://doi.org/10.1111/acv.12289.

León-Tapia, M.A. DNA barcoding and demographic history of *Peromyscus yucatanicus* (Rodentia: Cricetidae) endemic to the Yucatan Peninsula, Mexico. *J. Mamm. Evol.* **2020**,, https://doi.org/10.1007/s10914-020-09510-z.

Li, J.; Weckworth, B.V.; McCarthy, T.M.; Liang, X.C.; Liu, Y.L.; Xing, R.; Li, D.Q.; Zhang, Y.G.; Xue, Y.D.; Jackson, R., et al. Defining priorities for global snow leopard conservation landscapes. *Biol. Conserv.* **2020**, *241*, Art. 108387, https://doi.org/10.1016/j.biocon.2019.108387.

Li, W.W.; Liu, P.; Guo, X.M.; Wang, L.X.; Wang, Q.Y.; Yu, Y.; Dai, Y.C.; Li, L.; Zhang, L. Human-elephant conflict in Xishuangbanna Prefecture, China: Distribution, diffusion, and mitigation. *Glob. Ecol. Conserv.* **2018**, *16*, e00462, https://doi.org/10.1016/j.gecco.2018.e00462.

Li, W.W.; Yu, Y.; Liu, P.; Tang, R.C.; Dai, Y.C.; Li, L.; Zhang, L. Identifying climate refugia and its potential impact on small population of Asian elephant (*Elephas maximus*) in China. *Glob. Ecol. Conserv.* **2019**, *19*, e00664, https://doi.org/10.1016/j.gecco.2019.e00664.

Lindenmayer, D.B.; Blanchard, W.; Foster, C.N.; Scheele, B.; Westgate, M.J.; Stein, J.; Crane, M.; Florance, D. Habitat amount versus connectivity: An empirical study of bird responses. *Biol. Conserv.* **2020**, *241*, Art. 108377, https://doi.org/10.1016/j.biocon.2019.108377.

Linnell, M.A.; Lesmeister, D.B. Landscape connectivity and conservation prioritization for an old forest species with limited vagility. *Anim. Conserv.* **2019**, *22*, 568-578, https://doi.org/10.1111/acv.12496.

Lion, K.A.; Rice, S.E.; Clark, R.W. Genetic patterns in fragmented habitats: a case study for two Peromyscus species in southern California. *J. Mammal.* **2018**, *99*, 923-935, https://doi.org/10.1093/jmammal/gyy069.

Littlefield, C.E.; McRae, B.H.; Michalak, J.; Lawler, J.J.; Carroll, C. Connecting today's climates to future analogs to facilitate species movement under climate change. *Conserv. Biol.* **2017**, *31*, 1397-1408, https://doi.org/10.1111/cobi.12938.

Litvaitis, J.A.; Reed, G.C.; Carroll, R.P.; Litvaitis, M.K.; Tash, J.; Mahard, T.; Broman, D.J.A.; Callahan, C.; Ellingwood, M. Bobcats (*Lynx rufus*) as a model organism to investigate the effects of roads on wide-ranging carnivores. *Environ. Manage.* **2015**, *55*, 1366-1376, https://doi.org/10.1007/s00267-015-0468-2.

Liu, X.J.; Liu, D.F.; Zhao, H.Z.; He, J.H.; Liu, Y.L. Exploring the spatio-temporal impacts of farmland reforestation on ecological connectivity using circuit theory: A case study in the agro-pastoral ecotone of North China. *J. Geogr. Sci.* **2020**, *30*, 1419-1435, https://doi.org/10.1007/s11442-020-1790-z.

Lo, E.; Hemming-Schroeder, E.; Yewhalaw, D.; Nguyen, J.; Kebede, E.; Zemene, E.; Getachew, S.; Tushune, K.; Zhong, D.B.; Zhou, G.F., et al. Transmission dynamics of co-endemic *Plasmodium vivax* and *P. falciparum* in Ethiopia and prevalence of antimalarial resistant genotypes. *PLOS Negl. Trop. Dis.* **2017**, *11*, e0005806, https://doi.org/10.1371/journal.pntd.0005806.

Lo, E.; Lam, N.; Hemming-Schroeder, E.; Nguyen, J.; Zhou, G.F.; Lee, M.C.; Yang, Z.Q.; Cui, L.W.; Yan, G.Y. Frequent Spread of Plasmodium vivax Malaria Maintains High Genetic Diversity at the Myanmar-China Border, Without Distance and Landscape Barriers. *J. Infect. Dis.* **2017**, *216*, 1254-1263, https://doi.org/10.1093/infdis/jix106.

Lonsinger, R.C.; Schweizer, R.M.; Pollinger, J.P.; Wayne, R.K.; Roemer, G.W. Fine-scale genetic structure of the ringtail (*Bassariscus astutus*) in a Sky Island mountain range. *J. Mammal.* **2015**, *96*, 257-268, https://doi.org/10.1093/jmammal/gyv050.

Lopez, B.; Mejia, O.; Zuniga, G. The effect of landscape on functional connectivity and shell shape in the land snail *Humboldtiana durangoensis*. *PeerJ* **2020**, *8*, e9177, https://doi.org/10.7717/peerj.9177.

Lozier, J.D.; Strange, J.P.; Koch, J.B. Landscape heterogeneity predicts gene flow in a widespread polymorphic bumble bee, *Bombus bifarius* (Hymenoptera: Apidae). *Conserv. Genet.* **2013**, *14*, 1099-1110, https://doi.org/10.1007/s10592-013-0498-3.

Lu, Y.F.; Li, Q.W.; Wang, Y.K.; Xu, P. Planning conservation corridors in mountain areas based on integrated conservation planning models: A case study for a giant panda in the Qionglai Mountains. *J. Mt. Sci.* **2019**, *16*, 2654-2662, https://doi.org/10.1007/s11629-018-5138-4.

Luck, G.W.; Spooner, P.G.; Watson, D.M.; Watson, S.J.; Saunders, M.E. Interactions between almond plantations and native ecosystems: Lessons learned from north-western Victoria. *Ecol. Manage. Restor.* **2014**, *15*, 4-15, https://doi.org/10.1111/emr.12082.

Luo, Y.H.; Wu, J.S.; Wang, X.Y.; Wang, Z.Y.; Zhao, Y.H. Can policy maintain habitat connectivity under landscape fragmentation? A case study of Shenzhen, China. *Sci. Total Environ.* **2020**, *715*, 136829, https://doi.org/10.1016/j.scitotenv.2020.136829.

Ma, T.X.; Hu, Y.B.; Russo, I.R.M.; Nie, Y.G.; Yang, T.Y.; Xiong, L.J.; Ma, S.; Meng, T.; Han, H.; Zhang, X.M., et al. Walking in a heterogeneous landscape: Dispersal, gene flow and conservation implications for the giant panda in the Qinling Mountains. *Evol. Appl.* **2018**, *11*, 1859-1872, https://doi.org/10.1111/eva.12686.

MacDonald, Z.G.; Dupuis, J.R.; Davis, C.S.; Acorn, J.H.; Nielsen, S.E.; Sperling, F.A.H. Gene flow and climate-associated genetic variation in a vagile habitat specialist. *Mol. Ecol.* **2020**, *29*, 3889-3906, https://doi.org/10.1111/mec.15604.

Maher, S.P.; Morelli, T.L.; Hershey, M.; Flint, A.L.; Flint, L.E.; Moritz, C.; Beissinger, S.R. Erosion of refugia in the Sierra Nevada meadows network with climate change. *Ecosphere* **2017**, *8*, e01673, https://doi.org/10.1002/ecs2.1673.

Maiorano, L.; Boitani, L.; Chiaverini, L.; Ciucci, P. Uncertainties in the identification of potential dispersal corridors: The importance of behaviour, sex, and algorithm. *Basic Appl. Ecol.* **2017**, *21*, 66-75, https://doi.org/10.1016/j.baae.2017.02.005.

Maiorano, L.; Chiaverini, L.; Falco, M.; Ciucci, P. Combining multi-state species distribution models, mortality estimates, and landscape connectivity to model potential species distribution for endangered species in human dominated landscapes. *Biol. Conserv.* **2019**, *237*, 19-27, https://doi.org/10.1016/j.biocon.2019.06.014.

Malakoutikhah, S.; Fakheran, S.; Hemami, M.R.; Tarkesh, M.; Senn, J. Assessing future distribution, suitability of corridors and efficiency of protected areas to conserve vulnerable ungulates under climate change. *Divers. Distrib.* **2020**, *26*, 1383-1396, https://doi.org/https://doi.org/10.1111/ddi.13117.

Mallory, C.D.; Boyce, M.S. Prioritization of landscape connectivity for the conservation of Peary caribou. *Ecol. Evol.* **2019**, *9*, 2189-2205, https://doi.org/10.1002/ece3.4915.

Mariela, G.; Laura, C.; Belant, J.L. Planning for carnivore recolonization by mapping sex-specific landscape connectivity. *Glob. Ecol. Conserv.* **2020**, *21*, e00869, https://doi.org/10.1016/j.gecco.2019.e00869.

Marrotte, R.R.; Bowman, J. The relationship between least-cost and resistance distance. *PLoS One* **2017**, *12*, e0174212, https://doi.org/10.1371/journal.pone.0174212.

Marrotte, R.R.; Bowman, J.; Brown, M.G.C.; Cordes, C.; Morris, K.Y.; Prentice, M.B.; Wilson, P.J. Multi-species genetic connectivity in a terrestrial habitat network. *Mov. Ecol.* **2017**, *5*, 21, https://doi.org/10.1186/s40462-017-0112-2.

Marrotte, R.R.; Bowman, J.; Wilson, P.J. Climate connectivity of the bobcat in the Great Lakes region. *Ecol. Evol.* **2020**, *10*, 2131-2144, https://doi.org/10.1002/ece3.6049.

Marrotte, R.R.; Gonzalez, A.; Millien, V. Functional connectivity of the white-footed mouse in Southern Quebec, Canada. *Landscape Ecol.* **2017**, *32*, 1987-1998, https://doi.org/10.1007/s10980-017-0559-y.

Marrotte, R.R.; Gonzalez, A.; Millien, V. Landscape resistance and habitat combine to provide an optimal model of genetic structure and connectivity at the range margin of a small mammal. *Mol. Ecol.* **2014**, *23*, 3983-3998, https://doi.org/10.1111/mec.12847.

Martinez, P.A.; Pia, M.V.; Bahechar, I.A.; Molina, W.F.; Bidau, C.J.; Montoya-Burgos, J.I. The contribution of neutral evolution and adaptive processes in driving phenotypic divergence in a model mammalian species, the Andean fox *Lycalopex culpaeus*. *J. Biogeogr.* **2018**, *45*, 1114-1125, https://doi.org/10.1111/jbi.13189.

Mastretta-Yanes, A.; Xue, A.T.; Moreno-Letelier, A.; Jorgensen, T.H.; Alvarez, N.; Pinero, D.; Emerson, B.C. Long-term insitu persistence of biodiversity in tropical sky islands revealed by landscape genomics. *Mol. Ecol.* **2018**, *27*, 432-448, https://doi.org/10.1111/mec.14461.

Mateo-Sánchez, M.C.; Balkenhol, N.; Cushman, S.; Pérez, T.; Dominguez, A.; Saura, S. Estimating effective landscape distances and movement corridors: comparison of habitat and genetic data. *Ecosphere* **2015**, *6*, 59, https://doi.org/10.1890/es14-00387.1.

McClure, M.L.; Dickson, B.G.; Nicholson, K.L. Modeling connectivity to identify current and future anthropogenic barriers to movement of large carnivores: A case study in the American Southwest. *Ecol. Evol.* **2017**, *7*, 3762-3772, https://doi.org/10.1002/ece3.2939.

McClure, M.L.; Hansen, A.J.; Inman, R.M. Connecting models to movements: testing connectivity model predictions against empirical migration and dispersal data. *Landscape Ecol.* **2016**, *31*, 1419-1432, https://doi.org/10.1007/s10980-016-0347-0.

McRae, B.H.; Popper, K.; Jones, A.; Schindel, M.; Buttrick, S.; Hall, K.R.; Unnasch, R.S.; Platt, J. *Conserving Nature’s Stage: Mapping Omnidirectional Connectivity for Resilient Terrestrial Landscapes in the Pacific Northwest*; The Nature Conservancy: Portland, Oregon, 2016; p 47 pp. http://nature.org/resilienceNW.

Medley, K.A.; Jenkins, D.G.; Hoffman, E.A. Human-aided and natural dispersal drive gene flow across the range of an invasive mosquito. *Mol. Ecol.* **2015**, *24*, 284-295, https://doi.org/10.1111/mec.12925.

Melles, S.J.; Chu, C.; Alofs, K.M.; Jackson, D.A. Potential spread of Great Lakes fishes given climate change and proposed dams: an approach using circuit theory to evaluate invasion risk. *Landscape Ecol.* **2015**, *30*, 919-935, https://doi.org/10.1007/s10980-014-0114-z.

Melles, S.J.; Jones, N.E.; Schmidt, B.; Rayfield, B. A least-cost path approach to stream delineation using lakes as patches and a digital elevation model as the cost surface. In *Spatial Statistics 2011: Mapping Global Change*, Stein, A., Pebesma, E., Heuvelink, G., Eds. Elsevier Science Bv: Amsterdam, 2011; Vol. 7, pp. 240-245.

Menchaca, A.; Rossi, N.A.; Froidevaux, J.; Dias-Freedman, I.; Caragiulo, A.; Wultsch, C.; Harmsen, B.; Foster, R.; de la Torre, J.A.; Medellin, R.A., et al. Population genetic structure and habitat connectivity for jaguar (*Panthera onca*) conservation in Central Belize. *BMC Genet.* **2019**, *20*, 100, https://doi.org/10.1186/s12863-019-0801-5.

Merrick, M.J.; Koprowski, J.L. Circuit theory to estimate natal dispersal routes and functional landscape connectivity for an endangered small mammal. *Landscape Ecol.* **2017**, *32*, 1163-1179, https://doi.org/10.1007/s10980-017-0521-z.

Metzger, G.; Espindola, A.; Waits, L.P.; Sullivan, J. Genetic structure across broad spatial and temporal scales: Rocky Mountain tailed frogs (*Ascaphus montanus*; Anura: Ascaphidae) in the inland temperate rainforest. *J. Hered.* **2015**, *106*, 700-710, https://doi.org/10.5061/dryad.2pb57.

Meurant, M.; Gonzalez, A.; Doxa, A.; Albert, C.H. Selecting surrogate species for connectivity conservation. *Biol. Conserv.* **2018**, *227*, 326-334, https://doi.org/10.1016/j.biocon.2018.09.028.

Meyer, N.F.V.; Moreno, R.; Reyna-Hurtado, R.; Signer, J.; Balkenhol, N. Towards the restoration of the Mesoamerican Biological Corridor for large mammals in Panama: comparing multi-species occupancy to movement models. *Mov. Ecol.* **2020**, *8*, 3, https://doi.org/https://doi.org/10.1186/s40462-019-0186-0.

Micheletti, S.J.; Storfer, A. An approach for identifying cryptic barriers to gene flow that limit species' geographic ranges. *Mol. Ecol.* **2017**, *26*, 490-504, https://doi.org/10.1111/mec.13939.

Miller, M.P.; Bianchi, C.A.; Mullins, T.D.; Haig, S.M. Associations between forest fragmentation patterns and genetic structure in Pfrimer's Parakeet (*Pyrrhura pfrimeri*), an endangered endemic to central Brazil's dry forests. *Conserv. Genet.* **2013**, *14*, 333-343, https://doi.org/10.1007/s10592-012-0420-4.

Miller, M.P.; Davis, R.J.; Forsman, E.D.; Mullins, T.D.; Haig, S.M. Isolation by distance versus landscape resistance: Understanding dominant patterns of genetic structure in Northern Spotted Owls (*Strix occidentalis caurina*). *PLoS One* **2018**, *13*, e0201720, https://doi.org/10.1371/journal.pone.0201720.

Miller, W.L.; Miller-Butterworth, C.M.; Diefenbach, D.R.; Walter, W.D. Assessment of spatial genetic structure to identify populations at risk for infection of an emerging epizootic disease. *Ecol. Evol.* **2020**, *10*, 3977-3990, https://doi.org/10.1002/ece3.6161.

Mimet, A.; Kerbiriou, C.; Simon, L.; Julien, J.F.; Raymon, R. Contribution of private gardens to habitat availability, connectivity and conservation of the common pipistrelle in Paris. *Landscape Urban Plann.* **2020**, *193*, 103671, https://doi.org/10.1016/j.landurbplan.2019.103671.

Mims, M.C.; Hauser, L.; Goldberg, C.S.; Olden, J.D. Genetic differentiation, isolation-by-distance, and metapopulation dynamics of the Arizona Treefrog (*Hyla wrightorum*) in an isolated portion of its range. *PLoS One* **2016**, *11*, e0160655, https://doi.org/10.1371/journal.pone.0160655.

Mims, M.C.; Phillipsen, I.C.; Lytle, D.A.; Kirk, E.E.H.; Olden, J.D. Ecological strategies predict associations between aquatic and genetic connectivity for dryland amphibians. *Ecology* **2015**, *96*, 1371-1382, https://doi.org/10.1890/14-0490.1.

Mitchell, M.W.; Locatelli, S.; Clee, P.R.S.; Thomassen, H.A.; Gonder, M.K. Environmental variation and rivers govern the structure of chimpanzee genetic diversity in a biodiversity hotspot. *BMC Evol. Biol.* **2015**, *15*, 1, https://doi.org/10.1186/s12862-014-0274-0.

Mondal, I.; Kumar, R.S.; Habib, B.; Talukdar, G. Modelling fine scale movement corridors for the tricarinate hill turtle. In *International Archives of the Photogrammetry Remote Sensing and Spatial Information Sciences. XXIII ISPRS Congress, Commission VIII*, Halounova, L., Safar, V., Raju, P.L.N., Planka, L., Zdimal, V., Kumar, T.S., Faruque, F.S., Kerr, Y., Ramasamy, S.M., Comiso, J., et al., Eds. 2016; Vol. 41, pp. 719-725.

Monsimet, J.; Devineau, O.; Petillon, J.; Lafage, D. Explicit integration of dispersal-related metrics improves predictions of SDM in predatory arthropods. *Scientific Reports* **2020**, *10*, https://doi.org/10.1038/s41598-020-73262-2.

Mony, C.; Vannier, N.; Brunelliere, P.; Biget, M.; Coudouel, S.; Vandenkoornhuyse, P. The influence of host-plant connectivity on fungal assemblages in the root microbiota of *Brachypodium pinnatum*. *Ecology* **2020**, *101*, e02976, https://doi.org/10.1002/ecy.2976.

Moore, J.A.; Tallmon, D.A.; Nielsen, J.; Pyare, S. Effects of the landscape on boreal toad gene flow: does the pattern-process relationship hold true across distinct landscapes at the northern range margin? *Mol. Ecol.* **2011**, *20*, 4858-4869, https://doi.org/10.1111/j.1365-294X.2011.05313.x.

Morán-Ordóñez, A.; Pavlova, A.; Pinder, A.M.; Sim, L.; Sunnucks, P.; Thompson, R.M.; Davis, J. Aquatic communities in arid landscapes: local conditions, dispersal traits and landscape configuration determine local biodiversity. *Divers. Distrib.* **2015**, *21*, 1230-1241, https://doi.org/10.1111/ddi.12342.

Morgan, K.; Mboumba, J.F.; Ntie, S.; Mickala, P.; Miller, C.A.; Zhen, Y.; Harrigan, R.J.; Le Underwood, V.; Ruegg, K.; Fokam, E.B., et al. Precipitation and vegetation shape patterns of genomic and craniometric variation in the central African rodentPraomys misonnei. *Proceedings of the Royal Society B-Biological Sciences* **2020**, *287*, 10, https://doi.org/10.1098/rspb.2020.0449.

Morovati, M.; Karami, P.; Amjas, F.B. Accessing habitat suitability and connectivity for the westernmost population of Asian black bear (Ursus thibetanus gedrosianus, Blanford, 1877) based on climate changes scenarios in Iran. *PLoS One* **2020**, *15*, 22, https://doi.org/10.1371/journal.pone.0242432.

Mui, A.B.; Caverhill, B.; Johnson, B.; Fortin, M.J.; He, Y.H. Using multiple metrics to estimate seasonal landscape connectivity for Blanding's turtles (*Emydoidea blandingii*) in a fragmented landscape. *Landscape Ecol.* **2017**, *32*, 531-546, https://doi.org/10.1007/s10980-016-0456-9.

Muir, A.P.; Thomas, R.; Biek, R.; Mable, B.K. Using genetic variation to infer associations with climate in the common frog, *Rana temporaria*. *Mol. Ecol.* **2013**, *22*, 3737-3751, https://doi.org/10.1111/mec.12334.

Mulder, K.P.; Cortes-Rodriguez, N.; Grant, E.H.C.; Brand, A.; Fleischer, R.C. North-facing slopes and elevation shape asymmetric genetic structure in the range-restricted salamander Plethodon shenandoah. *Ecol. Evol.* **2019**, *9*, 5094-5105, https://doi.org/10.1002/ece3.5064.

Mullins, J.; Ascensao, F.; Simoes, L.; Andrade, L.; Santos-Reis, M.; Fernandes, C. Evaluating connectivity between Natura 2000 sites within the montado agroforestry system: a case study using landscape genetics of the wood mouse (*Apodemus sylvaticus*). *Landscape Ecol.* **2015**, *30*, 609-623, https://doi.org/10.1007/s10980-014-0130-z.

Muñoz-Pajares, A.J.; García, C.; Abdelaziz, M.; Bosch, J.; Perfectti, F.; Gómez, J.M. Drivers of genetic differentiation in a generalist insect-pollinated herb across spatial scales. *Mol. Ecol.* **2017**, *26*, 1576-1585, https://doi.org/10.1111/mec.13971.

Munshi-South, J. Urban landscape genetics: canopy cover predicts gene flow between white-footed mouse (*Peromyscus leucopus*) populations in New York City. *Mol. Ecol.* **2012**, *21*, 1360-1378, https://doi.org/10.1111/j.1365-294X.2012.05476.x.

Munshi-South, J.; Zolnik, C.P.; Harris, S.E. Population genomics of the Anthropocene: urbanization is negatively associated with genome-wide variation in white-footed mouse populations. *Evol. Appl.* **2016**, *9*, 546-564, https://doi.org/10.1111/eva.12357.

Myers, E.A.; Xue, A.T.; Gehara, M.; Cox, C.; Rabosky, A.R.D.; Lemos-Espinal, J.; Martinez-Gomez, J.E.; Burbrink, F.T. Environmental heterogeneity and not vicariant biogeographic barriers generate community-wide population structure in desert-adapted snakes. *Mol. Ecol.* **2019**, *28*, 4535-4548, https://doi.org/10.1111/mec.15182.

Naidoo, R.; Kilian, J.W.; Du Preez, P.; Beytell, P.; Aschenborn, O.; Taylor, R.D.; Stuart-Hill, G. Evaluating the effectiveness of local- and regional-scale wildlife corridors using quantitative metrics of functional connectivity. *Biol. Conserv.* **2018**, *217*, 96-103, https://doi.org/10.1016/j.biocon.2017.10.037.

Nali, R.C.; Becker, C.G.; Zamudio, K.R.; Prado, C.P.A.; Hou, Z. Topography, more than land cover, explains genetic diversity in a Neotropical savanna tree frog. *Divers. Distrib.* **2020**, *26*, 1798-1812, https://doi.org/10.1111/ddi.13154.

Naranjo-Diaz, N.; Conn, J.E.; Correa, M.M. Behavior and population structure of *Anopheles darlingi* in Colombia. *Infect. Genet. Evol.* **2016**, *39*, 64-73, https://doi.org/10.1016/j.meegid.2016.01.004.

Naranjo-Díaz, N.; Sallum, M.A.M.; Correa, M.M. Population dynamics of *Anopheles nuneztovari* in Colombia. *Infect., Genet. Evol.* **2016**, *45*, 56-65, https://doi.org/10.1016/j.meegid.2016.08.019.

Nevill, P.G.; Robinson, T.P.; Di Virgilio, G.; Wardell-Johnson, G. Beyond isolation by distance: What best explains functional connectivity among populations of three sympatric plant species in an ancient terrestrial island system? *Divers. Distrib.* **2019**, 10.1111/ddi.12959, https://doi.org/10.1111/ddi.12959.

Ng, J.; Landeen, E.L.; Logsdon, R.M.; Glor, R.E. Correlation between *Anolis* lizard dewlap phenotype and environmental variation indicates adaptive divergence of a signal important to sexual selection and species recognition *Evolution* **2013**, *67*, 573-582, https://doi.org/10.1111/j.1558-5646.2012.01795.x.

Nobert, B.R.; Merrill, E.H.; Pybus, M.J.; Bollinger, T.K.; Ten Hwang, Y. Landscape connectivity predicts chronic wasting disease risk in Canada. *J. Appl. Ecol.* **2016**, *53*, 1450-1459, https://doi.org/10.1111/1365-2664.12677.

Nogeire, T.M.; Davis, F.W.; Crooks, K.R.; McRae, B.H.; Lyren, L.M.; Boydston, E.E. Can orchards help connect Mediterranean ecosystems? Animal movement data alter conservation priorities. *Am. Midl. Nat.* **2015**, *174*, 105-116.

Noguerales, V.; Cordero, P.J.; Ortego, J. Hierarchical genetic structure shaped by topography in a narrow-endemic montane grasshopper. *BMC Evol. Biol.* **2016**, *16*, 96, https://doi.org/10.1186/s12862-016-0663-7.

Noguerales, V.; Cordero, P.J.; Ortego, J. Testing the role of ancient and contemporary landscapes on structuring genetic variation in a specialist grasshopper. *Ecol. Evol.* **2017**, *7*, 3110-3122, https://doi.org/10.1002/ece3.2810.

Nor, A.N.M.; Corstanje, R.; Harris, J.A.; Grafius, D.R.; Siriwardena, G.M. Ecological connectivity networks in rapidly expanding cities. *Heliyon* **2017**, *3*, e00325, https://doi.org/10.1016/j.heliyon.2017.e00325.

Nowakowski, A.J.; Dewoody, J.A.; Fagan, M.E.; Willoughby, J.R.; Donnelly, M.A. Mechanistic insights into landscape genetic structure of two tropical amphibians using field-derived resistance surfaces. *Mol. Ecol.* **2015**, *24*, 580-595, https://doi.org/10.1111/mec.13052.

Nowakowski, A.J.; Veiman-Echeverria, M.; Kurz, D.J.; Donnelly, M.A. Evaluating connectivity for tropical amphibians using empirically derived resistance surfaces. *Ecol. Appl.* **2015**, *25*, 928-942, https://doi.org/10.1890/14-0833.1.

Ntie, S.; Davis, A.R.; Hils, K.; Mickala, P.; Thomassen, H.A.; Morgan, K.; Vanthomme, H.; Gonder, M.K.; Anthony, N.M. Evaluating the role of Pleistocene refugia, rivers and environmental variation in the diversification of central African duikers (genera *Cephalophus* and *Philantomba*). *BMC Evol. Biol.* **2017**, *17*, 212, https://doi.org/10.1186/s12862-017-1054-4.

O'Connell, K.A.; Mulder, K.P.; Maldonado, J.; Currie, K.L.; Ferraro, D.M. Sampling related individuals within ponds biases estimates of population structure in a pond-breeding amphibian. *Ecol. Evol.* **2019**, *9*, 3620-3636, https://doi.org/10.1002/ece3.4994.

O'Donnell, R.P.; Drost, C.A.; Fellers, G.M.; Crabb, B.A.; Mock, K.E. Rare long-distance dispersal of the Island Night Lizard, *Xantusia riversiana*, maintains high diversity in a fragmented environment. *Conserv. Genet.* **2018**, *19*, 803-814, https://doi.org/10.1007/s10592-018-1055-x.

Oishi, T.; Uraguchi, K.; Takahashi, K.; Masuda, R. Population structures of the red fox (*Vulpes vulpes*) on the Hokkaido Island, Japan, revealed by microsatellite analysis. *J. Hered.* **2011**, *102*, 38-46, https://doi.org/10.1093/jhered/esq091.

Okamiya, H.; Kusano, T. Effects of landscape features on gene flow among urban frog populations. *Ecol. Res.* **2019**, *34*, 497-508, https://doi.org/10.1111/1440-1703.12011.

Oklander, L.I.; Mino, C.I.; Fernandez, G.; Caputo, M.; Corach, D. Genetic structure in the southernmost populations of black-and-gold howler monkeys (*Alouatta caraya*) and its conservation implications. *PLoS One* **2017**, *12*, e0185867, https://doi.org/10.1371/journal.pone.0185867.

Olah, G.; Smith, A.L.; Asner, G.P.; Brightsmith, D.J.; Heinsohn, R.G.; Peakall, R. Exploring dispersal barriers using landscape genetic resistance modelling in scarlet macaws of the Peruvian Amazon. *Landscape Ecol.* **2017**, *32*, 445-456, https://doi.org/10.1007/s10980-016-0457-8.

Oliveira, E.F.; Martinez, P.A.; Sao-Pedro, V.A.; Gehara, M.; Burbrink, F.T.; Mesquita, D.O.; Garda, A.A.; Colli, G.R.; Costa, G.C. Climatic suitability, isolation by distance and river resistance explain genetic variation in a Brazilian whiptail lizard. *Heredity* **2018**, *120*, 251-265, https://doi.org/10.1038/s41437-017-0017-2.

Ortego, J.; Aguirre, M.P.; Noguerales, V.; Cordero, P.J. Consequences of extensive habitat fragmentation in landscape-level patterns of genetic diversity and structure in the Mediterranean esparto grasshopper. *Evol. Appl.* **2015**, *8*, 621-632, https://doi.org/10.1111/eva.12273.

Ortego, J.; Gugger, P.F.; Sork, V.L. Climatically stable landscapes predict patterns of genetic structure and admixture in the Californian canyon live oak. *J. Biogeogr.* **2015**, *42*, 328-338, https://doi.org/10.1111/jbi.12419.

Ortego, J.; Noguerales, V.; Cordero, P.J. Geographical and ecological drivers of mitonuclear genetic divergence in a Mediterranean grasshopper. *Evol. Biol.* **2017**, *44*, 505-521, https://doi.org/10.1007/s11692-017-9423-x.

Osipova, L.; Okello, M.M.; Njumbi, S.J.; Ngene, S.; Western, D.; Hayward, M.W.; Balkenhol, N. Fencing solves human-wildlife conflict locally but shifts problems elsewhere: A case study using functional connectivity modelling of the African elephant. *J. Appl. Ecol.* **2018**, *55*, 2673-2684, https://doi.org/10.1111/1365-2664.13246.

Osipova, L.; Okello, M.M.; Njumbi, S.J.; Ngene, S.; Western, D.; Hayward, M.W.; Balkenhol, N. Using step-selection functions to model landscape connectivity for African elephants: accounting for variability across individuals and seasons. *Anim. Conserv.* **2019**, *22*, 35-48, https://doi.org/10.1111/acv.12432.

Osipova, L.; Okello, M.M.; Njumbi, S.J.; Ngene, S.; Western, D.; Hayward, M.W.; Balkenhol, N. Validating movement corridors for African elephants predicted from resistance-based landscape connectivity models. *Landscape Ecol.* **2019**, *34*, 865-878, https://doi.org/10.1007/s10980-019-00811-0.

Oyama, K.; Herrera-Arroyo, M.L.; Rocha-Ramirez, V.; Benitez-Malvido, J.; Ruiz-Sanchez, E.; Gonzalez-Rodriguez, A. Gene flow interruption in a recently human-modified landscape: The value of isolated trees for the maintenance of genetic diversity in a Mexican endemic red oak. *For. Ecol. Manage.* **2017**, *390*, 27-35, https://doi.org/10.1016/j.foreco.2017.01.018.

Oyama, K.; Ramirez-Toro, W.; Penaloza-Ramirez, J.M.; Pedraza, A.E.P.; Torres-Miranda, C.A.; Ruiz-Sanchez, E.; Gonzalez-Rodriguez, A. High genetic diversity and connectivity among populations of *Quercus candicans*, *Quercus crassifolia*, and *Quercus castanea* in a heterogeneous landscape in Mexico. *Trop. Conserv. Sci.* **2018**, *11*, https://doi.org/10.1177/1940082918766195.

Pagacz, S. The effect of a major drainage divide on the gene flow of a semiaquatic carnivore, the Eurasian otter. *J. Mammal.* **2016**, *97*, 1164-1176, https://doi.org/10.1093/jmammal/gyw066.

Palacio, R.D.; Kattan, G.H.; Pimm, S.L. Bird extirpations and community dynamics in an Andean cloud forest over 100 years of land-use change. *Conserv. Biol.* **2020**, *34*, 677-687, https://doi.org/10.1111/cobi.13423.

Papadopoulou, A.; Knowles, L.L. Linking micro- and macroevolutionary perspectives to evaluate the role of Quaternary sea-level oscillations in island diversification. *Evolution* **2017**, *71*, 2901-2917, https://doi.org/10.1111/evo.13384.

Papadopoulou, A.; Knowles, L.L. Species-specific responses to island connectivity cycles: refined models for testing phylogeographic concordance across a Mediterranean Pleistocene Aggregate Island Complex. *Mol. Ecol.* **2015**, *24*, 4252-4268, https://doi.org/10.1111/mec.13305.

Paquette, S.R.; Talbot, B.; Garant, D.; Mainguy, J.; Pelletier, F. Modelling the dispersal of the two main hosts of the raccoon rabies variant in heterogeneous environments with landscape genetics. *Evol. Appl.* **2014**, *7*, 734-749, https://doi.org/10.1111/eva.12161.

Parks, L.C.; Wallin, D.O.; Cushman, S.A.; McRae, B.H. Landscape-level analysis of mountain goat population connectivity in Washington and southern British Columbia. *Conserv. Genet.* **2015**, *16*, 1195-1207, https://doi.org/10.1007/s10592-015-0732-2.

Pavlova, A.; Amos, J.N.; Goretskaia, M.I.; Beme, I.R.; Buchanan, K.L.; Takeuchi, N.; Radford, J.Q.; Sunnucks, P. Genes and song: genetic and social connections in fragmented habitat in a woodland bird with limited dispersal. *Ecology* **2012**, *93*, 1717-1727.

Paz, A.; Ibanez, R.; Lips, K.R.; Crawford, A.J. Testing the role of ecology and life history in structuring genetic variation across a landscape: a trait-based phylogeographic approach. *Mol. Ecol.* **2015**, *24*, 3723-3737, https://doi.org/10.1111/mec.13275.

Peeler, J.L.; Smithwick, E.A.H. Exploring invasibility with species distribution modeling: How does fire promote cheatgrass (*Bromus tectorum*) invasion within lower montane forests? *Divers. Distrib.* **2018**, *24*, 1308-1320, https://doi.org/10.1111/ddi.12765.

Pelletier, D.; Clark, M.; Anderson, M.G.; Rayfield, B.; Wulder, M.A.; Cardille, J.A. Applying circuit theory for corridor expansion and management at regional scales: tiling, pinch points, and omnidirectional connectivity. *PLoS One* **2014**, *9*, e84135, https://doi.org/10.1371/journal.pone.0084135.

Pelletier, D.; Lapointe, M.E.; Wulder, M.A.; White, J.C.; Cardille, J.A. Forest connectivity regions of Canada using circuit theory and image analysis. *PLoS One* **2017**, *12*, e0169428, https://doi.org/10.1371/journal.pone.0169428.

Peng, J.; Yang, Y.; Liu, Y.X.; Hu, Y.N.; Du, Y.Y.; Meersmans, J.; Qiu, S.J. Linking ecosystem services and circuit theory to identify ecological security patterns. *Sci. Total Environ.* **2018**, *644*, 781-790, https://doi.org/10.1016/j.scitotenv.2018.06.292.

Pereoglou, F.; Lindenmayer, D.B.; Macgregor, C.; Ford, F.; Wood, J.; Banks, S.C. Landscape genetics of an early successional specialist in a disturbance-prone environment. *Mol. Ecol.* **2013**, *22*, 1267-1281, https://doi.org/10.1111/mec.12172.

Pérez-Espona, S.; McLeod, J.E.; Franks, N.R. Landscape genetics of a top neotropical predator. *Mol. Ecol.* **2012**, *21*, 5969-5985, https://doi.org/10.1111/mec.12088.

Pérez-Méndez, N.; Jordano, P.; Valido, A. Persisting in defaunated landscapes: Reduced plant population connectivity after seed dispersal collapse. *J. Ecol.* **2018**, *106*, 936-947, https://doi.org/10.1111/1365-2745.12848.

Pérez-Sánchez, A.J.; Schibalski, A.; Schröder, B.; Klimek, S.; Dauber, J. Disentangling the effects of host resources, local, and landscape variables on the occurrence pattern of the dusky large blue butterfly (*Phengaris nausithous*) in upland grasslands. *J. Insect Conserv.* **2020**, *24*, 327-341, https://doi.org/10.1007/s10841-019-00204-3.

Peterman, W.E.; Anderson, T.L.; Ousterhout, B.H.; Drake, D.L.; Semlitsch, R.D.; Eggert, L.S. Differential dispersal shapes population structure and patterns of genetic differentiation in two sympatric pond breeding salamanders. *Conserv. Genet.* **2015**, *16*, 59-69, https://doi.org/10.1007/s10592-014-0640-x.

Peterman, W.E.; Connette, G.M.; Semlitsch, R.D.; Eggert, L.S. Ecological resistance surfaces predict fine-scale genetic differentiation in a terrestrial woodland salamander. *Mol. Ecol.* **2014**, *23*, 2402-2413, https://doi.org/10.1111/mec.12747.

Peterman, W.E.; Feist, S.M.; Semlitsch, R.D.; Eggert, L.S. Conservation and management of peripheral populations: Spatial and temporal influences on the genetic structure of wood frog (*Rana sylvatica*) populations. *Biol. Conserv.* **2013**, *158*, 351-358, https://doi.org/10.1016/j.biocon.2012.07.028.

Petsas, P.; Tsavdaridou, A.I.; Mazaris, A.D. A multispecies approach for assessing landscape connectivity in data-poor regions. *Landscape Ecol.* **2020**, *35*, 561-576, https://doi.org/10.1007/s10980-020-00981-2.

Pfaender, J.; Hadiaty, R.K.; Schliewen, U.K.; Herder, F. Rugged adaptive landscapes shape a complex, sympatric radiation. *Proceedings of the Royal Society B-Biological Sciences* **2016**, *283*, 20152342, https://doi.org/10.1098/rspb.2015.2342.

Phillipsen, I.C.; Kirk, E.H.; Bogan, M.T.; Mims, M.C.; Olden, J.D.; Lytle, D.A. Dispersal ability and habitat requirements determine landscape-level genetic patterns in desert aquatic insects. *Mol. Ecol.* **2015**, *24*, 54-69, https://doi.org/10.1111/mec.13003.

Phillipsen, I.C.; Lytle, D.A. Aquatic insects in a sea of desert: population genetic structure is shaped by limited dispersal in a naturally fragmented landscape. *Ecography* **2013**, *36*, 731-743, https://doi.org/10.1111/j.1600-0587.2012.00002.x.

Pierik, M.E.; Dell'Acqua, M.; Confalonieri, R.; Bocchi, S.; Gomarasca, S. Designing ecological corridors in a fragmented landscape: A fuzzy approach to circuit connectivity analysis. *Ecol. Indicators* **2016**, *67*, 807-820, https://doi.org/10.1016/j.ecolind.2016.03.032.

Pilliod, D.S.; Arkle, R.S.; Robertson, J.M.; Murphy, M.A.; Funk, W.C. Effects of changing climate on aquatic habitat and connectivity for remnant populations of a wide-ranging frog species in an arid landscape. *Ecol. Evol.* **2015**, *5*, 3979-3994, https://doi.org/10.1002/ece3.1634.

Pitman, R.T.; Fattebert, J.; Williams, S.T.; Williams, K.S.; Hill, R.A.; Hunter, L.T.B.; Robinson, H.; Power, J.; Swanepoel, L.; Slotow, R., et al. Cats, connectivity and conservation: incorporating data sets and integrating scales for wildlife management. *J. Appl. Ecol.* **2017**, *54*, 1687-1698, https://doi.org/10.1111/1365-2664.12851.

Pliscoff, P.; Simonetti, J.A.; Grez, A.A.; Vergara, P.M.; Barahona-Segovia, R.M. Defining corridors for movement of multiple species in a forest-plantation landscape. *Glob. Ecol. Conserv.* **2020**, *23*, https://doi.org/10.1016/j.gecco.2020.e01108.

Poelchau, M.F.; Hamrick, J.L. Differential effects of landscape-level environmental features on genetic structure in three codistributed tree species in Central America. *Mol. Ecol.* **2012**, *21*, 4970-4982, https://doi.org/10.1111/j.1365-294X.2012.05755.x.

Polato, N.R.; Gray, M.M.; Gill, B.B.; Becker, C.G.; Casner, K.L.; Flecker, A.S.; Kondratieff, B.C.; Encalada, A.C.; Poff, N.L.; Funk, W.C., et al. Genetic diversity and gene flow decline with elevation in montane mayflies. *Heredity* **2017**, *119*, 107-116, https://doi.org/10.1038/hdy.2017.23.

Poor, E.E.; Loucks, C.; Jakes, A.; Urban, D.L. Comparing habitat suitability and connectivity modeling methods for conserving pronghorn migrations. *PLoS One* **2012**, *7*, e49390, https://doi.org/10.1371/journal.pone.0049390.

Prado, J.R.; Percequillo, A.R.; Thomaz, A.T.; Knowles, L.L. Similar but different: Revealing the relative roles of species-traits versus biome properties structuring genetic variation in South American marsh rats. *J. Biogeogr.* **2019**, *46*, 770-783, https://doi.org/10.1111/jbi.13529.

Proctor, M.F.; Nielsen, S.E.; Kasworm, W.F.; Servheen, C.; Radandt, T.G.; Machutchon, A.G.; Boyce, M.S. Grizzly bear connectivity mapping in the Canada-United States trans-border region. *J. Wildl. Manage.* **2015**, *79*, 544-558, https://doi.org/10.1002/jwmg.862.

Prunier, J.G.; Colyn, M.; Legendre, X.; Flamand, M.C. Regression commonality analyses on hierarchical genetic distances. *Ecography* **2017**, *40*, 1412-1425, https://doi.org/10.1111/ecog.02108.

Prunier, J.G.; Colyn, M.; Legendre, X.; Nimon, K.F.; Flamand, M.C. Multicollinearity in spatial genetics: separating the wheat from the chaff using commonality analyses. *Mol. Ecol.* **2015**, *24*, 263-283, https://doi.org/10.1111/mec.13029.

Puddu, G.; Maiorano, L. Combining multiple tools to provide realistic potential distributions for the mouflon in Sardinia: species distribution models, spatial pattern analysis and circuit theory. *Hystrix* **2016**, *27*, https://doi.org/10.4404/hystrix-27.1-11695.

Rakotomalala, M.; Vrancken, B.; Pinel-Galzi, A.; Ramavovololona, P.; Hebrard, E.; Randrianangaly, J.S.; Dellicour, S.; Lemey, P.; Fargette, D. Comparing patterns and scales of plant virus phylogeography: Rice yellow mottle virus in Madagascar and in continental Africa. *Virus Evol.* **2019**, *5*, vez023, https://doi.org/10.1093/ve/vez023.

Rayfield, B.; Pelletier, D.; Dumitru, M.; Cardille, J.A.; Gonzalez, A.; Travis, J. Multipurpose habitat networks for short-range and long-range connectivity: a new method combining graph and circuit connectivity. *Methods Ecol. Evol.* **2016**, *7*, 222-231, https://doi.org/10.1111/2041-210x.12470.

Razeng, E.; Moran-Ordonez, A.; Box, J.B.; Thompson, R.; Davis, J.; Sunnucks, P. A potential role for overland dispersal in shaping aquatic invertebrate communities in arid regions. *Freshwat. Biol.* **2016**, *61*, 745-757, https://doi.org/10.1111/fwb.12744.

Razgour, O. Beyond species distribution modeling: A landscape genetics approach to investigating range shifts under future climate change. *Ecol. Inform.* **2015**, *30*, 250-256, https://doi.org/10.1016/j.ecoinf.2015.05.007.

Razgour, O.; Forester, B.; Taggart, J.B.; Bekaert, M.; Juste, J.; Ibanez, C.; Puechmaille, S.J.; Novella-Fernandez, R.; Alberdi, A.; Manel, S. Considering adaptive genetic variation in climate change vulnerability assessment reduces species range loss projections. *Proc. Natl. Acad. Sci. U.S.A.* **2019**, *116*, 10418-10423, https://doi.org/10.1073/pnas.1820663116.

Razgour, O.; Kasso, M.; Santos, H.; Juste, J. Up in the air: Threats to Afromontane biodiversity from climate change and habitat loss revealed by genetic monitoring of the Ethiopian Highlands bat. *Evol. Appl.* **2020**, 10.1111/eva.13161, 13, https://doi.org/10.1111/eva.13161.

Razgour, O.; Rebelo, H.; Puechmaille, S.J.; Juste, J.; Ibanez, C.; Kiefer, A.; Burke, T.; Dawson, D.A.; Jones, G. Scale-dependent effects of landscape variables on gene flow and population structure in bats. *Divers. Distrib.* **2014**, *20*, 1173-1185, https://doi.org/10.1111/ddi.12200.

Razgour, O.; Taggart, J.B.; Manel, S.; Juste, J.; Ibanez, C.; Rebelo, H.; Alberdi, A.; Jones, G.; Park, K. An integrated framework to identify wildlife populations under threat from climate change. *Molec. Ecol. Resour.* **2018**, *18*, 18-31, https://doi.org/10.1111/1755-0998.12694.

Reed, G.C.; Litvaitis, J.A.; Callahan, C.; Carroll, R.P.; Litvaitis, M.K.; Broman, D.J.A. Modeling landscape connectivity for bobcats using expert-opinion and empirically derived models: how well do they work? *Anim. Conserv.* **2017**, *20*, 308-320, https://doi.org/10.1111/acv.12325.

Rees, E.E.; Pond, B.A.; Tinline, R.R.; Bélanger, D. Modelling the effect of landscape heterogeneity on the efficacy of vaccination for wildlife infectious disease control. *J. Appl. Ecol.* **2013**, *50*, 881-891, https://doi.org/10.1111/1365-2664.12101.

Reinhardt, J.R.; Naugle, D.E.; Maestas, J.D.; Allred, B.; Evans, J.; Falkowski, M. Next-generation restoration for sage-grouse: a framework for visualizing local conifer cuts within a landscape context. *Ecosphere* **2017**, *8*, e01888, https://doi.org/10.1002/ecs2.1888.

Rezvani, A.; Malakoutikhah, S.; Fakheran, S.; Sossfianian, A.; Hemami, M.R.; Senn, J. Comparing landscape suitability and permeability with and without migration data: the influence of species movement behavior. *Turk. J. Zool.* **2020**, *44*, 335-+, https://doi.org/10.3906/zoo-2003-41.

Ribeiro, V.; Werneck, F.P.; Machado, R.B. Distribution dynamics of South American savanna birds in response to Quaternary climate change. *Austral Ecol.* **2016**, *41*, 768-777, https://doi.org/10.1111/aec.12363.

Richardson, J.L. Divergent landscape effects on population connectivity in two co-occurring amphibian species. *Mol. Ecol.* **2012**, *21*, 4437-4451, https://doi.org/10.1111/j.1365-294X.2012.05708.x.

Richter-Boix, A.; Quintela, M.; Kierczak, M.; Franch, M.; Laurila, A. Fine-grained adaptive divergence in an amphibian: genetic basis of phenotypic divergence and the role of nonrandom gene flow in restricting effective migration among wetlands. *Mol. Ecol.* **2013**, *22*, 1322-1340, https://doi.org/10.1111/mec.12181.

Rio-Maior, H.; Nakamura, M.; Alvares, F.; Beja, P. Designing the landscape of coexistence: Integrating risk avoidance, habitat selection and functional connectivity to inform large carnivore conservation. *Biol. Conserv.* **2019**, *235*, 178-188, https://doi.org/10.1016/j.biocon.2019.04.021.

Rivera, D.; Prates, I.; Rodrigues, M.T.; Carnaval, A.C. Effects of climate and geography on spatial patterns of genetic structure in tropical skinks. *Mol. Phylogen. Evol.* **2020**, *143*, 106661, https://doi.org/10.1016/j.ympev.2019.106661.

Rizzo, V.; Sánchez-Fernández, D.; Alonso, R.; Pastor, J.; Ribera, I. Substratum karstificability, dispersal and genetic structure in a strictly subterranean beetle. *J. Biogeogr.* **2017**, *44*, 2527-2538, https://doi.org/10.1111/jbi.13074.

Rödder, D.; Nekum, S.; Cord, A.F.; Engler, J.O. Coupling satellite data with species distribution and connectivity models as a tool for environmental management and planning in matrix-sensitive species. *Environ. Manage.* **2016**, *58*, 130-143, https://doi.org/10.1007/s00267-016-0698-y.

Roever, C.L.; van Aarde, R.J.; Leggett, K. Functional connectivity within conservation networks: Delineating corridors for African elephants. *Biol. Conserv.* **2013**, *157*, 128-135, https://doi.org/10.1016/j.biocon.2012.06.025.

Roffler, G.H.; Schwartz, M.K.; Pilgrim, K.L.; Talbot, S.L.; Sage, G.K.; Adams, L.G.; Luikart, G. Identification of landscape features influencing gene flow: How useful are habitat selection models? *Evol. Appl.* **2016**, *9*, 805-817, https://doi.org/10.1111/eva.12389.

Ross, S.; Costanzi, J.M.; Al Jahdhami, M.; Al Rawahi, H.; Ghazali, M.; Senn, H. First evaluation of the population structure, genetic diversity and landscape connectivity of the Endangered Arabian tahr. *Mamm. Biol.* **2020**, *100*, 659-673, https://doi.org/10.1007/s42991-020-00072-4.

Rouger, R.; Jump, A.S. A seascape genetic analysis reveals strong biogeographical structuring driven by contrasting processes in the polyploid saltmarsh species *Puccinellia maritima* and *Triglochin maritima*. *Mol. Ecol.* **2014**, *23*, 3158-3170, https://doi.org/10.1111/mec.12802.

Row, J.R.; Blouin-Demers, G.; Lougheed, S.C. Habitat distribution influences dispersal and fine-scale genetic population structure of eastern foxsnakes (*Mintonius gloydi*) across a fragmented landscape. *Mol. Ecol.* **2010**, *19*, 5157-5171, https://doi.org/10.1111/j.1365-294X.2010.04872.x.

Row, J.R.; Doherty, K.E.; Cross, T.B.; Schwartz, M.K.; Oyler-McCance, S.J.; Naugle, D.E.; Knick, S.T.; Fedy, B.C. Quantifying functional connectivity: The role of breeding habitat, abundance, and landscape features on range-wide gene flow in sage-grouse. *Evol. Appl.* **2018**, *11*, 1305-1321, https://doi.org/10.1111/eva.12627.

Row, J.R.; Knick, S.T.; Oyler-McCance, S.J.; Lougheed, S.C.; Fedy, B.C. Developing approaches for linear mixed modeling in landscape genetics through landscape-directed dispersal simulations. *Ecol. Evol.* **2017**, *7*, 3751-3761, https://doi.org/10.1002/ece3.2825.

Row, J.R.; Oyler-McCance, S.J.; Fedy, B.C. Differential influences of local subpopulations on regional diversity and differentiation for greater sage-grouse (*Centrocercus urophasianus*). *Mol. Ecol.* **2016**, *25*, 4424-4437, https://doi.org/10.1111/mec.13776.

Row, J.R.; Oyler-McCance, S.J.; Fike, J.A.; O'Donnell, M.S.; Doherty, K.E.; Aldridge, C.L.; Bowen, Z.H.; Fedy, B.C. Landscape characteristics influencing the genetic structure of greater sage-grouse within the stronghold of their range: a holistic modeling approach. *Ecol. Evol.* **2015**, *5*, 1955-1969, https://doi.org/10.1002/ece3.1479.

Row, J.R.; Wilson, P.J.; Gomez, C.; Koen, E.L.; Bowman, J.; Thornton, D.; Murray, D.L. The subtle role of climate change on population genetic structure in Canada lynx. *Global Change Biol.* **2014**, *20*, 2076-2086, https://doi.org/10.1111/gcb.12526.

Roy, C.L.; Gregory, A.J. Landscape and population genetics reveal long distance sharp-tailed grouse (*Tympanuchus phasianellus*) movements and a recent bottleneck in Minnesota. *Conserv. Genet.* **2019**, *20*, 259-273, https://doi.org/10.1007/s10592-018-1128-x.

Roy, C.L.; Gregory, A.J. Landscape genetic evaluation of a tallgrass prairie corridor using the Greater Prairie-chicken (*Tympanuchus cupido*). *Landscape Ecol.* **2019**, *34*, 1425-1443, https://doi.org/10.1007/s10980-019-00862-3.

Ruiz-Lopez, M.J.; Barelli, C.; Rovero, F.; Hodges, K.; Roos, C.; Peterman, W.E.; Ting, N. A novel landscape genetic approach demonstrates the effects of human disturbance on the Udzungwa red colobus monkey (*Procolobus gordonorum*). *Heredity* **2016**, *116*, 167-176, https://doi.org/10.1038/hdy.2015.82.

Ruiz-Sanchez, E.; Specht, C.D. Ecological speciation in *Nolina parviflora* (Asparagaceae): Lacking spatial connectivity along of the trans-Mexican volcanic belt. *PLoS One* **2014**, *9*, e98754, https://doi.org/10.1371/journal.pone.0098754.

Russo, I.R.M.; Sole, C.L.; Barbato, M.; von Bramann, U.; Bruford, M.W. Landscape determinants of fine-scale genetic structure of a small rodent in a heterogeneous landscape (Hluhluwe-iMfolozi Park, South Africa). *Scientific Reports* **2016**, *6*, 29168, https://doi.org/10.1038/srep29168.

Saarman, N.; Burak, M.; Opiro, R.; Hyseni, C.; Echodu, R.; Dion, K.; Opiyo, E.A.; Dunn, A.W.; Amatulli, G.; Aksoy, S., et al. A spatial genetics approach to inform vector control of tsetse flies (*Glossina fuscipes fuscipes*) in Northern Uganda. *Ecol. Evol.* **2018**, *8*, 5336-5354, https://doi.org/10.1002/ece3.4050.

Sackett, L.C.; Cross, T.B.; Jones, R.T.; Johnson, W.C.; Ballare, K.; Ray, C.; Collinge, S.K.; Martin, A.P. Connectivity of prairie dog colonies in an altered landscape: inferences from analysis of microsatellite DNA variation. *Conserv. Genet.* **2012**, *13*, 407-418, https://doi.org/10.1007/s10592-011-0293-y.

Sacks, B.N.; Brazeal, J.L.; Lewis, J.C. Landscape genetics of the nonnative red fox of California. *Ecol. Evol.* **2016**, *6*, 4775-4791, https://doi.org/10.1002/ece3.2229.

Saeki, I.; Hirao, A.S.; Kenta, T.; Nagamitsu, T.; Hiura, T. Landscape genetics of a threatened maple, *Acer miyabei*: Implications for restoring riparian forest connectivity. *Biol. Conserv.* **2018**, *220*, 299-307, https://doi.org/10.1016/j.biocon.2018.01.018.

Sanchez-Fernandez, D.; Lobo, J.M.; Abellan, P.; Millan, A. Environmental niche divergence between genetically distant lineages of an endangered water beetle. *Biol. J. Linn. Soc.* **2011**, *103*, 891-903, https://doi.org/10.1111/j.1095-8312.2011.01668.x.

Sanchez-Ramirez, S.; Rico, Y.; Berry, K.H.; Edwards, T.; Karl, A.E.; Henen, B.T.; Murphy, R.W. Landscape limits gene flow and drives population structure in Agassiz's desert tortoise (*Gopherus agassizii*). *Scientific Reports* **2018**, *8*, 11231, https://doi.org/10.1038/s41598-018-29395-6.

Sarremejane, R.; Canedo-Arguelles, M.; Prat, N.; Mykra, H.; Muotka, T.; Bonada, N. Do metacommunities vary through time? Intermittent rivers as model systems. *J. Biogeogr.* **2017**, *44*, 2752-2763, https://doi.org/10.1111/jbi.13077.

Schaffer-Smith, D.; Swenson, J.J.; Boveda-Penalba, A.J. Rapid conservation assessment for endangered species using habitat connectivity models. *Environ. Conserv.* **2016**, *43*, 221-230, https://doi.org/10.1017/s0376892915000405.

Schenau, E.; Jha, S. High levels of male diploidy but low levels of genetic structure characterize *Bombus vosnesenskii* populations across the Western US. *Conserv. Genet.* **2017**, *18*, 597-605, https://doi.org/10.1007/s10592-016-0900-z.

Schindler, A.R.; Haukos, D.A.; Hagen, C.A.; Ross, B.E. A decision-support tool to prioritize candidate landscapes for lesser prairie-chicken conservation. *Landscape Ecol.* **2020**, *35*, 1417-1434, https://doi.org/10.1007/s10980-020-01024-6.

Schirmel, J.; Thiele, J.; Entling, M.H.; Buchholz, S. Trait composition and functional diversity of spiders and carabids in linear landscape elements. *Agric. Ecosyst. Environ.* **2016**, *235*, 318-328, https://doi.org/10.1016/j.agee.2016.10.028.

Schneider, A.K.; Strohbach, M.W.; App, M.; Schroder, B. The 'GartenApp': assessing and communicating the ecological potential of private gardens. *Sustainability* **2020**, *12*, Art No. 95, https://doi.org/10.3390/su12010095.

Schwartz, M.K.; Copeland, J.P.; Anderson, N.J.; Squires, J.R.; Inman, R.M.; McKelvey, K.S.; Pilgrim, K.L.; Waits, L.P.; Cushman, S.A. Wolverine gene flow across a narrow climatic niche. *Ecology* **2009**, *90*, 3222-3232, https://doi.org/10.1890/08-1287.1.

Seaborn, T.; Hauser, S.S.; Konrade, L.; Waits, L.P.; Goldberg, C.S. Landscape genetic inferences vary with sampling scenario for a pond-breeding amphibian. *Ecol. Evol.* **2019**, *9*, 5063-5078, https://doi.org/10.1002/ece3.5023.

Serrano-Rodriguez, A.; Escalona-Segura, G.; Vazquez, A.H.P.; Elias, E.E.I.; Ruiz-Montoya, L. Potential distribution and landscape connectivity: criteria for reevaluating the threat degree of *Campylorhynchus yucatanicus* (Aves: Troglodytidae). *Rev. Biol. Trop.* **2017**, *65*, 1554-1568.

Seymour, M.; Rasanen, K.; Holderegger, R.; Kristjansson, B.K. Connectivity in a pond system influences migration and genetic structure in threespine stickleback. *Ecol. Evol.* **2013**, *3*, 492-502, https://doi.org/10.1002/ece3.476.

Shafer, A.B.A.; Northrup, J.M.; White, K.S.; Boyce, M.S.; Cote, S.D.; Coltman, D.W. Habitat selection predicts genetic relatedness in an alpine ungulate. *Ecology* **2012**, *93*, 1317-1329.

Sharma, L.K.; Mukherjee, T.; Saren, P.C.; Chandra, K. Identifying suitable habitat and corridors for Indian Grey Wolf (*Canis lupus pallipes*) in Chotta Nagpur Plateau and Lower Gangetic Planes: A species with differential management needs. *PLoS One* **2019**, *14*, e0215019, https://doi.org/10.1371/journal.pone.0215019.

Shi, X.M.; Qin, M.Z. Research on the optimization of regional green infrastructure network. *Sustainability* **2018**, *10*, 4649, https://doi.org/10.3390/su10124649.

Shimazaki, A.; Yamaura, Y.; Senzaki, M.; Yabuhara, Y.; Akasaka, T.; Nakamura, F. Urban permeability for birds: An approach combining mobbing-call experiments and circuit theory. *Urban For. Urban Green.* **2016**, *19*, 167-175, https://doi.org/10.1016/j.ufug.2016.06.024.

Shirk, A.J.; Wallin, D.O.; Cushman, S.A.; Rice, C.G.; Warheit, K.I. Inferring landscape effects on gene flow: a new model selection framework. *Mol. Ecol.* **2010**, *19*, 3603-3619, https://doi.org/10.1111/j.1365-294X.2010.04745.x.

Shokri, S.; Jafari, A.; Rabei, K.; Hadipour, E.; Alinejad, H.; Zeppenfeld, T.; Soufi, M.; Qashqaei, A.; Ahmadpour, M.; Zehzad, B., et al. Conserving populations at the edge of their geographic range: the endangered Caspian red deer (*Cervus elaphus maral*) across protected areas of Iran. *Biodivers. Conserv.* **2020**, *30*, 85-105, https://doi.org/10.1007/s10531-020-02077-4.

Shrestha, B.; Kindlmann, P. Implications of landscape genetics and connectivity of snow leopard in the Nepalese Himalayas for its conservation. *Scientific Reports* **2020**, *10*, https://doi.org/10.1038/s41598-020-76912-7.

Silva-Arias, G.A.; Reck-Kortmann, M.; Carstens, B.C.; Hasenack, H.; Bonatto, S.L.; Freitas, L.B. From inland to the coast: Spatial and environmental signatures on the genetic diversity in the colonization of the South Atlantic Coastal Plain. *Perspect. Plant Ecol. Evol. Syst.* **2017**, *28*, 47-57, https://doi.org/10.1016/j.ppees.2017.06.006.

Simon, J.A.; Marrotte, R.R.; Desrosiers, N.; Fiset, J.; Gaitan, J.; Gonzalez, A.; Koffi, J.K.; Lapointe, F.-J.; Leighton, P.A.; Lindsay, L.R., et al. Climate change and habitat fragmentation drive the occurrence of *Borrelia burgdorferi*, the agent of Lyme disease, at the northeastern limit of its distribution. *Evol. Appl.* **2014**, *7*, 750-764, https://doi.org/10.1111/eva.12165.

Smit, H.A.; Robinson, T.J.; Van Vuuren, B.J. Coalescence methods reveal the impact of vicariance on the spatial genetic structure of *Elephantulus edwardii* (Afrotheria, Macroscelidea). *Mol. Ecol.* **2007**, *16*, 2680-2692, https://doi.org/10.1111/j.1365-294X.2007.03334.x.

Smith, A.L.; Bull, C.M.; Gardner, M.G.; Driscoll, D.A. Life history influences how fire affects genetic diversity in two lizard species. *Mol. Ecol.* **2014**, *23*, 2428-2441, https://doi.org/10.1111/mec.12757.

Smith, A.L.; Landguth, E.L.; Bull, C.M.; Banks, S.C.; Gardner, M.G.; Driscoll, D.A. Dispersal responses override density effects on genetic diversity during post-disturbance succession. *Proceedings of the Royal Society B-Biological Sciences* **2016**, *283*, 20152934, https://doi.org/10.1098/rspb.2015.2934.

Soare, T.W.; Kumar, A.; Naish, K.A.; Donnell, S.O. Genetic evidence for landscape effects on dispersal in the army ant *Eciton burchellii*. *Mol. Ecol.* **2014**, *23*, 96-109, https://doi.org/10.1111/mec.12573.

Sosa, V.; Loera, I.; Angulo, D.F.; Vasquez-Cruz, M.; Gandara, E. Climate change and conservation in a warm North American desert: effect in shrubby plants. *PeerJ* **2019**, *7*, e6572, https://doi.org/10.7717/peerj.6572.

Spear, S.F.; Storfer, A. Anthropogenic and natural disturbance lead to differing patterns of gene flow in the Rocky Mountain tailed frog, *Ascaphus montanus*. *Biol. Conserv.* **2010**, *143*, 778-786, https://doi.org/10.1016/j.biocon.2009.12.021.

Stille, J.; Shrestha, N.; Toninger, R.; MacKenzie, C.; Ramesbottom, A.; Smith, J. Integrated restoration prioritization-A multi-discipline approach in the Greater Toronto Area. *Aquat. Ecosyst. Health Manage.* **2018**, *21*, 352-361, https://doi.org/10.1080/14634988.2018.1507408.

St-Louis, V.; Forester, J.D.; Pelletier, D.; Belisle, M.; Desrochers, A.; Rayfield, B.; Wulder, M.A.; Cardille, J.A. Circuit theory emphasizes the importance of edge-crossing decisions in dispersal-scale movements of a forest passerine. *Landscape Ecol.* **2014**, *29*, 831-841, https://doi.org/10.1007/s10980-014-0019-x.

Struebig, M.J.; Linkie, M.; Deere, N.J.; Martyr, D.J.; Millyanawati, B.; Faulkner, S.C.; Le Comber, S.C.; Mangunjaya, F.M.; Leader-Williams, N.; McKay, J.E., et al. Addressing human-tiger conflict using socio-ecological information on tolerance and risk. *Nat. Commun.* **2018**, *9*, 3455, https://doi.org/10.1038/s41467-018-05983-y.

Suksavate, W.; Duengkae, P.; Chaiyes, A. Quantifying landscape connectivity for wild Asian elephant populations among fragmented habitats in Thailand. *Glob. Ecol. Conserv.* **2019**, *19*, e00685, https://doi.org/10.1016/j.gecco.2019.e00685.

Sunny, A.; Gandarilla-Aizpuro, F.J.; Monroy-Vilchis, O.; Zarco-Gonzalez, M.M. Potential distribution and habitat connectivity of *Crotalus triseriatus* in Central Mexico. *Herpetozoa* **2019**, *32*, 139-148, https://doi.org/10.3897/herpetozoa.32.e36361.

Suppan, F.; Frey-Roos, F. Generating resistance surfaces for wildlife corridor extraction. *Photogrammetrie Fernerkundung Geoinformation* **2014**, 10.1127/1432-8364/2014/0235, 435-450, https://doi.org/10.1127/1432-8364/2014/0235.

Suraci, J.P.; Nickel, B.A.; Wilmers, C.C. Fine-scale movement decisions by a large carnivore inform conservation planning in human-dominated landscapes. *Landscape Ecol.* **2020**, *35*, 1635-1649, https://doi.org/10.1007/s10980-020-01052-2.

Svensson, J.; Bubnicki, J.W.; Jonsson, B.G.; Andersson, J.; Mikusinski, G. Conservation significance of intact forest landscapes in the Scandinavian Mountains Green Belt. *Landscape Ecol.* **2020**, *35*, 2113-2131, https://doi.org/10.1007/s10980-020-01088-4.

Talbi, C.; Bourhy, H. Canine rabies in Africa through genetic analysis, spatial and temporal isolates. *Virologie* **2011**, *15*, 307-318, https://doi.org/10.1684/vir.2011.0418.

Talbi, C.; Lemey, P.; Suchard, M.A.; Abdelatif, E.; Elharrak, M.; Jalal, N.; Faouzi, A.; Echevarria, J.E.; Moron, S.V.; Rambaut, A., et al. Phylodynamics and human-mediated dispersal of a zoonotic virus. *PLoS Path.* **2010**, *6*, e1001166, https://doi.org/10.1371/journal.ppat.1001166.

Tan, D.J.X.; Chattopadhyay, B.; Garg, K.M.; Cros, E.; Ericson, P.G.P.; Irestedt, M.; Rheindt, F.E. Novel genome and genome-wide SNPs reveal early fragmentation effects in an edge-tolerant songbird population across an urbanized tropical metropolis. *Scientific Reports* **2018**, *8*, 12804, https://doi.org/10.1038/s41598-018-31074-5.

Tarkhnishvili, D.; Gavashelishvili, A.; Murtskhvaladze, M.; Latsuzbaia, A. Landscape complexity in the Caucasus impedes genetic assimilation of human populations more effectively than language or ethnicity. *Human Biol.* **2016**, *88*, 287, https://doi.org/10.13110/humanbiology.88.4.0287.

Tassi, F.; Ghirotto, S.; Mezzavilla, M.; Vilaça, S.T.; De Santi, L.; Barbujani, G. Early modern human dispersal from Africa: genomic evidence for multiple waves of migration. *Investig. Genet.* **2015**, *6*, https://doi.org/10.1186/s13323-015-0030-2.

Tatem, A.J.; Hemelaar, J.; Gray, R.R.; Salemi, M. Spatial accessibility and the spread of HIV-1 subtypes and recombinants. *AIDS* **2012**, *26*, 2351-2360, https://doi.org/10.1097/QAD.0b013e328359a904.

Thayn, J.B.; Sampeck, K.; Spaccapaniccia, M. Refining Hernando de Soto's route using electric circuit theory and CircuitScape. *Prof. Geogr.* **2016**, *68*, 595-602, https://doi.org/10.1080/00330124.2015.1124787.

Thiele, J.; Buchholz, S.; Schirmel, J. Using resistance distance from circuit theory to model dispersal through habitat corridors. *J. Plant Ecol.* **2018**, *11*, 385-393, https://doi.org/10.1093/jpe/rtx004.

Thiele, J.; Kellner, S.; Buchholz, S.; Schirmel, J. Connectivity or area: what drives plant species richness in habitat corridors? *Landscape Ecol.* **2018**, *33*, 173-181, https://doi.org/10.1007/s10980-017-0606-8.

Thiele, J.; Schirmel, J.; Buchholz, S. Effectiveness of corridors varies among phytosociological plant groups and dispersal syndromes. *PLoS One* **2018**, *13*, e0199980, https://doi.org/10.1371/journal.pone.0199980.

Thomassen, H.A.; Buermann, W.; Mila, B.; Graham, C.H.; Cameron, S.E.; Schneider, C.J.; Pollinger, J.P.; Saatchi, S.; Wayne, R.K.; Smith, T.B. Modeling environmentally associated morphological and genetic variation in a rainforest bird, and its application to conservation prioritization. *Evol. Appl.* **2010**, *3*, 1-16, https://doi.org/10.1111/j.1752-4571.2009.00093.x.

Thomassen, H.A.; Freedman, A.H.; Brown, D.M.; Buermann, W.; Jacobs, D.K. Regional differences in seasonal timing of rainfall discriminate between genetically distinct East African giraffe taxa. *PLoS One* **2013**, *8*, e77191, https://doi.org/10.1371/journal.pone.0077191.

Thomassen, H.A.; Fuller, T.; Buermann, W.; Mila, B.; Kieswetter, C.M.; Jarrin, P.; Cameron, S.E.; Mason, E.; Schweizer, R.; Schlunegger, J., et al. Mapping evolutionary process: a multi-taxa approach to conservation prioritization. *Evol. Appl.* **2011**, *4*, 397-413, https://doi.org/10.1111/j.1752-4571.2010.00172.x.

Thompson, J.J.; Velilla, M. Modeling the effects of deforestation on the connectivity of jaguar *Panthera onca* populations at the southern extent of the species' range. *Endanger. Species Res.* **2017**, *34*, 109-121, https://doi.org/10.3354/esr00840.

Thompson, P.L.; Rayfield, B.; Gonzalez, A. Loss of habitat and connectivity erodes species diversity, ecosystem functioning, and stability in metacommunity networks. *Ecography* **2017**, *40*, 98-108, https://doi.org/10.1111/ecog.02558.

Thorne, J.H.; Choe, H.; Boynton, R.M.; Lee, D.K. Open space networks can guide urban renewal in a megacity. *Environ. Res. Lett.* **2020**, *15*, 12, https://doi.org/10.1088/1748-9326/ab9fad.

Tian, X.Y.; Ye, J.W.; Wang, T.M.; Bao, L.; Wang, H.F. Different processes shape the patterns of divergence in the nuclear and chloroplast genomes of a relict tree species in East Asia. *Ecol. Evol.* **2020**, *10*, 4331-4342, https://doi.org/10.1002/ece3.6200.

Tinoco, B.A.; Astudillo, P.X.; Latta, S.C.; Strubbe, D.; Graham, C.H. Influence of patch factors and connectivity on the avifauna of fragmented Polylepis forest in the Ecuadorian Andes. *Biotropica* **2013**, *45*, 602-611, https://doi.org/10.1111/btp.12047.

Titus, V.R.; Bell, R.C.; Becker, C.G.; Zamudio, K.R. Connectivity and gene flow among Eastern tiger salamander (*Ambystoma tigrinum*) populations in highly modified anthropogenic landscapes. *Conserv. Genet.* **2014**, *15*, 1447-1462, https://doi.org/10.1007/s10592-014-0629-5.

Tobgay, S.; Mahavik, N. Potential habitat distribution of Himalayan red panda and their connectivity in Sakteng Wildlife Sanctuary, Bhutan. *Ecol. Evol.* **2020**, *10*, 12929-12939, https://doi.org/10.1002/ece3.6874.

Toczydlowski, R.H.; Waller, D.M. Drift happens: Molecular genetic diversity and differentiation among populations of jewelweed (*Impatiens capensis* Meerb.) reflect fragmentation of floodplain forests. *Mol. Ecol.* **2019**, *28*, 2459-2475, https://doi.org/10.1111/mec.15072.

Tonzo, V.; Papadopoulou, A.; Ortego, J. Genomic data reveal deep genetic structure but no support for current taxonomic designation in a grasshopper species complex. *Mol. Ecol.* **2019**, *28*, 3869-3886, https://doi.org/10.1111/mec.15189.

Torio, D.D.; Chmura, G.L. Impacts of sea level rise on marsh as fish habitat. *Estuaries Coast* **2015**, *38*, 1288-1303, https://doi.org/10.1007/s12237-013-9740-y.

Torres-Morales, L.; Guillen, A.; Ruiz-Sanchez, E. Distinct patterns of genetic connectivity found for two frugivorous bat species in Mesoamerica. *Acta Chiropt.* **2019**, *21*, 35-49, https://doi.org/10.3161/15081109acc2019.21.1.003.

Travis, K.B.; Haeckel, I.; Stevens, G.; Tesauro, J.; Kiviat, E. Bog turtle (*Glyptemys muhlenbergii*) dispersal corridors and conservation in New York, USA *Herpetol. Conserv. Biol.* **2018**, *13*, 257-272.

Trense, D.; Schmidt, T.L.; Yang, Q.; Chung, J.; Hoffmann, A.A.; Fischer, K. Anthropogenic and natural barriers affect genetic connectivity in an Alpine butterfly. *Mol. Ecol.* **2020**, 10.1111/mec.15707, 17, https://doi.org/10.1111/mec.15707.

Trovao, N.S.; Baele, G.; Vrancken, B.; Bielejec, F.; Suchard, M.A.; Fargette, D.; Lemey, P. Host ecology determines the dispersal patterns of a plant virus. *Virus Evol.* **2015**, *1*, vev016, https://doi.org/10.1093/ve/vev016.

Trumbo, D.R.; Salerno, P.E.; Logan, K.A.; Alldredge, M.W.; Gagne, R.B.; Kozakiewicz, C.P.; Kraberger, S.; Fountain-Jones, N.M.; Craft, M.E.; Carver, S., et al. Urbanization impacts apex predator gene flow but not genetic diversity across an urban-rural divide. *Mol. Ecol.* **2019**, *28*, 4926-4940, https://doi.org/10.1111/mec.15261.

Trumbo, D.R.; Spear, S.F.; Baumsteiger, J.; Storfer, A. Rangewide landscape genetics of an endemic Pacific northwestern salamander. *Mol. Ecol.* **2013**, *22*, 1250-1266, https://doi.org/10.1111/mec.12168.

Tucker, J.M.; Allendorf, F.W.; Truex, R.L.; Schwartz, M.K. Sex-biased dispersal and spatial heterogeneity affect landscape resistance to gene flow in fisher. *Ecosphere* **2017**, *8*, e01839, https://doi.org/10.1002/ecs2.1839.

Unfried, T.M.; Hauser, L.; Marzluff, J.M. Effects of urbanization on Song Sparrow (*Melospiza melodia*) population connectivity. *Conserv. Genet.* **2013**, *14*, 41-53, https://doi.org/10.1007/s10592-012-0422-2.

Uroy, L.; Mony, C.; Ernoult, A. Additive effects of connectivity provided by different habitat types drive plant assembly. *Scientific Reports* **2019**, *9*, 13952, https://doi.org/10.1038/s41598-019-50184-2.

Valero, K.C.W. Evidence for an intrinsic factor promoting landscape genetic divergence in Madagascan leaf-litter frogs. *Front. Genet.* **2015**, *6*, 155, https://doi.org/10.3389/fgene.2015.00155.

VanAcker, M.C.; Little, E.A.H.; Molaei, G.; Bajwa, W.I.; Diuk-Wasser, M.A. Enhancement of risk for Lyme disease by landscape connectivity, New York, New York, USA. *Emerging Infect. Dis.* **2019**, *25*, 1136-1143, https://doi.org/10.3201/eid2506.181741.

Vanthomme, H.P.A.; Nzamba, B.S.; Alonso, A.; Todd, A.F. Empirical selection between least-cost and current-flow designs for establishing wildlife corridors in Gabon. *Conserv. Biol.* **2019**, *33*, 329-338, https://doi.org/10.1111/cobi.13194.

Vasconcellos, M.M.; Colli, G.R.; Weber, J.N.; Ortiz, E.M.; Rodrigues, M.T.; Cannatella, D.C. Isolation by instability: Historical climate change shapes population structure and genomic divergence of treefrogs in the Neotropical Cerrado savanna. *Mol. Ecol.* **2019**, *28*, 1748-1764, https://doi.org/10.1111/mec.15045.

Vasudev, D.; Fletcher, R.J. Incorporating movement behavior into conservation prioritization in fragmented landscapes: An example of western hoolock gibbons in Garo Hills, India. *Biol. Conserv.* **2015**, *181*, 124-132, https://doi.org/10.1016/j.biocon.2014.11.021.

Velo-Anton, G.; Parra, J.L.; Parra-Olea, G.; Zamudio, K.R. Tracking climate change in a dispersal-limited species: reduced spatial and genetic connectivity in a montane salamander. *Mol. Ecol.* **2013**, *22*, 3261-3278, https://doi.org/10.1111/mec.12310.

Vera, N.S.; Chiappero, M.B.; Priotto, J.W.; Sommaro, L.V.; Steinmann, A.R.; Gardenal, C.N. Genetic structure of populations of the Pampean grassland mouse, *Akodon azarae*, in an agroecosystem under intensive management. *Mamm. Biol.* **2019**, *98*, 52-60, https://doi.org/10.1016/j.mambio.2019.07.001.

Villemey, A.; Peterman, W.E.; Richard, M.; Ouin, A.; van Halder, I.; Stevens, V.M.; Baguette, M.; Roche, P.; Archaux, F. Butterfly dispersal in farmland: a replicated landscape genetics study on the meadow brown butterfly (*Maniola jurtina*). *Landscape Ecol.* **2016**, *31*, 1629-1641, https://doi.org/10.1007/s10980-016-0348-z.

Villemey, A.; van Halder, I.; Ouin, A.; Barbaro, L.; Chenot, J.; Tessier, P.; Calatayud, F.; Martin, H.; Roche, P.; Archaux, F. Mosaic of grasslands and woodlands is more effective than habitat connectivity to conserve butterflies in French farmland. *Biol. Conserv.* **2015**, *191*, 206-215, https://doi.org/10.1016/j.biocon.2015.06.030.

Vining, B.; Williams, P.R. Crossing the western Altiplano: The ecological context of Tiwanaku migrations. *J. Archaeol. Sci.* **2020**, *113*, 105046, https://doi.org/10.1016/j.jas.2019.105046.

Vrancken, B.; Zhao, B.; Li, X.G.; Han, X.X.; Liu, H.Z.; Zhao, J.; Zhong, P.; Lin, Y.; Zai, J.J.; Liu, M.C., et al. Comparative Circulation Dynamics of the Five Main HIV Types in China. *J. Virol.* **2020**, *94*, 14, https://doi.org/10.1128/jvi.00683-20.

Wachter, G.A.; Papadopoulou, A.; Muster, C.; Arthofer, W.; Knowles, L.L.; Steiner, F.M.; Schlick-Steiner, B.C. Glacial refugia, recolonization patterns and diversification forces in Alpine-endemic Megabunus harvestmen. *Mol. Ecol.* **2016**, *25*, 2904-2919, https://doi.org/10.1111/mec.13634.

Walas, L.; Ganatsas, P.; Iszkulo, G.; Thomas, P.A.; Dering, M. Spatial genetic structure and diversity of natural populations of *Aesculus hippocastanum L*. in Greece. *PLoS One* **2019**, *14*, e0226225, https://doi.org/10.1371/journal.pone.0226225.

Walpole, A.A.; Bowman, J.; Murray, D.L.; Wilson, P.J. Functional connectivity of lynx at their southern range periphery in Ontario, Canada. *Landscape Ecol.* **2012**, *27*, 761-773, https://doi.org/10.1007/s10980-012-9728-1.

Wang, F.; McShea, W.J.; Li, S.; Wang, D.J. Does one size fit all? A multispecies approach to regional landscape corridor planning. *Divers. Distrib.* **2018**, *24*, 415-425, https://doi.org/10.1111/ddi.12692.

Wang, I.J.; Glor, R.E.; Losos, J.B. Quantifying the roles of ecology and geography in spatial genetic divergence. *Ecol. Lett.* **2013**, *16*, 175-182, https://doi.org/10.1111/ele.12025.

Wanghe, K.Y.; Guo, X.L.; Wang, M.; Zhuang, H.F.; Ahmad, S.; Khan, T.U.; Xiao, Y.Q.; Luan, X.F.; Li, K. Gravity model toolbox: An automated and open-source ArcGIS tool to build and prioritize ecological corridors in urban landscapes. *Glob. Ecol. Conserv.* **2020**, *22*, e01012, https://doi.org/10.1016/j.gecco.2020.e01012.

Warren, M.J.; Wallin, D.O.; Beausoleil, R.A.; Warheit, K.I. Forest cover mediates genetic connectivity of northwestern cougars. *Conserv. Genet.* **2016**, *17*, 1011-1024, https://doi.org/10.1007/s10592-016-0840-7.

Watson, S.J.; Watson, D.M.; Luck, G.W.; Spooner, P.G. Effects of landscape composition and connectivity on the distribution of an endangered parrot in agricultural landscapes. *Landscape Ecol.* **2014**, *29*, 1249-1259, https://doi.org/10.1007/s10980-014-0065-4.

Werner, E.E.; Davis, C.J.; Skelly, D.K.; Relyea, R.A.; Benard, M.F.; McCauley, S.J. Cross-scale interactions and the distribution-abundance relationship. *PLoS One* **2014**, *9*, e97387, https://doi.org/10.1371/journal.pone.0097387.

Wilk, A.J.; Donlon, K.C.; Peterman, W.E. Effects of habitat fragment size and isolation on the density and genetics of urban red-backed salamanders (*Plethodon cinereus*). *Urban Ecosyst.* **2020**, *23*, 761-773, https://doi.org/10.1007/s11252-020-00958-8.

Winiarski, K.J.; Peterman, W.E.; Whiteley, A.R.; McGarigal, K. Multiscale resistant kernel surfaces derived from inferred gene flow: An application with vernal pool breeding salamanders. *Molec. Ecol. Resour.* **2020**, *20*, 97-113, https://doi.org/10.1111/1755-0998.13089.

Wood, M.A.; Gilbert, J.A.; Lacher, T.E. Payments for environmental service's role in landscape connectivity. *Environ. Conserv.* **2020**, *47*, 89-96, https://doi.org/10.1017/s0376892920000016.

Wüest, R.O.; Boucher, F.C.; Bouchenak-Khelladi, Y.; Karger, D.N.; Linder, H.P. Dissecting biodiversity in a global hotspot: Uneven dynamics of immigration and diversification within the Cape Floristic Region of South Africa. *J. Biogeogr.* **2019**, *46*, 1936-1947, https://doi.org/10.1111/jbi.13625.

Xie, P.; Yang, J.; Wang, H.Y.; Liu, Y.F.; Liu, Y.L. A new method of simulating urban ventilation corridors using circuit theory. *Sustain. Cities Soc.* **2020**, *59*, 102162, https://doi.org/10.1016/j.scs.2020.102162.

Xu, J.Y.; Fan, F.F.; Liu, Y.X.; Dong, J.Q.; Chen, J.X. Construction of ecological security patterns in nature reserves based on ecosystem services and circuit theory: A case study in Wenchuan, China. *Int. J. Env. Res. Public Health* **2019**, *16*, 3220, https://doi.org/10.3390/ijerph16173220.

Xu, W.J.; Huang, Q.Y.; Stabach, J.; Buho, H.; Leimgruber, P. Railway underpass location affects migration distance in Tibetan antelope (*Pantholops hodgsonii*). *PLoS One* **2019**, *14*, e0211798, https://doi.org/10.1371/journal.pone.0211798.

Xue, X.Y.; Lin, Y.; Zheng, Q.M.; Wang, K.; Zhang, J.; Deng, J.S.; Abubakar, G.A.; Gan, M.Y. Mapping the fine-scale spatial pattern of artificial light pollution at night in urban environments from the perspective of bird habitats. *Sci. Total Environ.* **2020**, *702*, 134725, https://doi.org/10.1016/j.scitotenv.2019.134725.

Yannic, G.; Pellissier, L.; Dubey, S.; Vega, R.; Basset, P.; Mazzotti, S.; Pecchioli, E.; Vernesi, C.; Hauffe, H.C.; Searle, J.B., et al. Multiple refugia and barriers explain the phylogeography of the Valais shrew, *Sorex antinorii* (Mammalia: Soricomorpha). *Biol. J. Linn. Soc.* **2012**, *105*, 864-880, https://doi.org/10.1111/j.1095-8312.2011.01824.x.

Yao, H.M.; Hsieh, Y.P.; Kong, J.; Hofmann, M. Modelling electrical conduction in nanostructure assemblies through complex networks. *Nat. Mater.* **2020**, *19*, 745-751, https://doi.org/10.1038/s41563-020-0664-1.

Yin, Y.J.; Liu, S.L.; Sun, Y.X.; Zhao, S.; An, Y.; Dong, S.K.; Ana, C.X.X. Identifying multispecies dispersal corridor priorities based on circuit theory: A case study in Xishuangbanna, Southwest China. *J. Geogr. Sci.* **2019**, *29*, 1228-1245, https://doi.org/10.1007/s11442-019-1655-5.

Young, S.G.; Carrel, M.; Kitchen, A.; Malanson, G.P.; Tamerius, J.; Ali, M.; Kayali, G. How's the flu getting through? Landscape genetics suggests both humans and birds spread H5N1 in Egypt. *Infect. Genet. Evol.* **2017**, *49*, 293-299, https://doi.org/10.1016/j.meegid.2017.02.005.

Youngquist, M.B.; Inoue, K.; Berg, D.J.; Boone, M.D. Effects of land use on population presence and genetic structure of an amphibian in an agricultural landscape. *Landscape Ecol.* **2017**, *32*, 147-162, https://doi.org/10.1007/s10980-016-0438-y.

Yumnam, B.; Jhala, Y.V.; Qureshi, Q.; Maldonado, J.E.; Gopal, R.; Saini, S.; Srinivas, Y.; Fleischer, R.C. Prioritizing tiger conservation through landscape genetics and habitat linkages. *PLoS One* **2014**, *9* e111207, https://doi.org/10.1371/journal.pone.0111207.

Zarrate-Charry, D.A.; Massey, A.L.; Gonzalez-Maya, J.F.; Betts, M.G. Multi-criteria spatial identification of carnivore conservation areas under data scarcity and conflict: a jaguar case study in Sierra Nevada de Santa Marta, Colombia. *Biodivers. Conserv.* **2018**, *27*, 3373-3392, https://doi.org/10.1007/s10531-018-1605-z.

Zawadzka, J.; Gallagher, E.; Smith, H.; Corstanje, R. Ecosystem services from combined natural and engineered water and wastewater treatment systems: Going beyond water quality enhancement. *Ecol. Engin: X* **2019**, *2*, 100006, https://doi.org/10.1016/j.ecoena.2019.100006.

Zeigler, S.L.; Neel, M.C.; Oliveira, L.; Raboy, B.E.; Fagan, W.F. Conspecific and heterospecific attraction in assessments of functional connectivity. *Biodivers. Conserv.* **2011**, *20*, 2779-2796, https://doi.org/10.1007/s10531-011-0107-z.

Zeller, K.; McGarigal, K.; Cushman, S.; Beier, P.; Vickers, T.; Boyce, W. Sensitivity of resource selection and connectivity models to landscape definition. *Landscape Ecol.* **2017**, *32*, 835-855, https://doi.org/10.1007/s10980-017-0489-8.

Zeller, K.A.; Jennings, M.K.; Vickers, T.W.; Ernest, H.B.; Cushman, S.A.; Boyce, W.M. Are all data types and connectivity models created equal? Validating common connectivity approaches with dispersal data. *Divers. Distrib.* **2018**, *24*, 868-879, https://doi.org/10.1111/ddi.12742.

Zeller, K.A.; McGarigal, K.; Cushman, S.A.; Beier, P.; Vickers, T.W.; Boyce, W.M. Using step and path selection functions for estimating resistance to movement: pumas as a case study. *Landscape Ecol.* **2016**, *31*, 1319-1335, https://doi.org/10.1007/s10980-015-0301-6.

Zeller, K.A.; Wattles, D.W.; Destefano, S. Evaluating methods for identifying large mammal road crossing locations: black bears as a case study. *Landscape Ecol.* **2020**, *35*, 1799–1808, https://doi.org/10.1007/s10980-020-01057-x.

Zellmer, A.J.; Hanes, M.M.; Hird, S.M.; Carstens, B.C. Deep phylogeographic structure and environmental differentiation in the carnivorous plant *Sarracenia alata*. *Syst. Biol.* **2012**, *61*, 763-777, https://doi.org/10.1093/sysbio/sys048.

Zellmer, A.J.; Knowles, L.L. Disentangling the effects of historic vs. contemporary landscape structure on population genetic divergence. *Mol. Ecol.* **2009**, *18*, 3593-3602, https://doi.org/10.1111/j.1365-294X.2009.04305.x.

Zeppenfeld, T.; Balkenhol, N.; Kóvacs, K.; Carminati, A. Rhizosphere hydrophobicity: A positive trait in the competition for water. *PLoS One* **2017**, *12*, e0182188, https://doi.org/10.1371/journal.pone.0182188.

Zhang, X.; Sun, Y.X.; Landis, J.B.; Zhang, J.W.; Yang, L.S.; Lin, N.; Zhang, H.J.; Guo, R.; Li, L.J.; Zhang, Y.H., et al. Genomic insights into adaptation to heterogeneous environments for the ancient relictual *Circaeaster agrestis* (Circaeasteraceae, Ranunculales). *New Phytol.* **2020**, 10.1111/nph.16669, https://doi.org/10.1111/nph.16669.

Zhang, Y.; Clauzel, C.; Li, J.; Xue, Y.D.; Zhang, Y.G.; Wu, G.S.; Giraudoux, P.; Li, L.; Li, D.Q. Identifying refugia and corridors under climate change conditions for the Sichuan snub-nosed monkey (*Rhinopithecus roxellana*) in Hubei Province, China. *Ecol. Evol.* **2019**, *9*, 1680-1690, https://doi.org/10.1002/ece3.4815.

Zhao, X.M.; Ren, B.P.; Li, D.Y.; Garber, P.A.; Zhu, P.F.; Xiang, Z.F.; Grueter, C.C.; Liu, Z.J.; Li, M. Climate change, grazing, and collecting accelerate habitat contraction in an endangered primate. *Biol. Conserv.* **2019**, *231*, 88-97, https://doi.org/10.1016/j.biocon.2019.01.007.

Ziolkowska, E.; Perzanowski, K.; Bleyhl, B.; Ostapowicz, K.; Kuemmerle, T. Understanding unexpected reintroduction outcomes: Why aren't European bison colonizing suitable habitat in the Carpathians? *Biol. Conserv.* **2016**, *195*, 106-117, https://doi.org/10.1016/j.biocon.2015.12.032.