

## Waits Lab Publications

### Published or in press

\* denotes graduate student author, ^ denotes undergraduate student author

272. Lamp\* K, AM Holland, LP Waits, JL Bowman (in press) An evaluation of genetic survey methods for bobcats in Western Maryland. *Wildlife Society Bulletin*
271. Stacy\*EM, M Robards, TS Jung, PM Kukka, J Sullivan, PA Hohenlohe, LP Waits (2025). Comparing microsatellites and single nucleotide polymorphisms to evaluate genetic structure and diversity in wolverines (*Gulo gulo*) across Alaska and western Canada. *Journal of Mammalogy*, gyae151.
270. Turnock\* MF, JE Teisberg, WF Kasworm, MR Falcy, MF. Proctor, LP Waits (2024) Gene flow prevents genetic diversity loss despite small effective population size in fragmented grizzly bear (*Ursus arctos*) populations. *Conservation Genetics* <https://doi.org/10.1007/s10592-024-01666-y>
269. Sévêque<sup>\$</sup> A, RC Lonsinger, LP Waits, KE Brzeski, LM Komoroske, C Ott-Conn, SL Mayhew, CD Norton, TR Petroelje, JD Swenson, DJ Morin (2024) Sources of bias in applying close-kin mark–recapture to terrestrial game species with different demography and life history. *Ecology* 105(3), p.e4244.
268. Jensen\* A, M Muthersbaugh, M Ruth, CR Butfiloski, J Cantrell, J., J Adams, LP Waits, JC Kilgo, DS Jachowski (2024) Resource pulses shape seasonal and individual variation in the diet of an omnivorous carnivore. *Ecology and Evolution* 14(7): e11632.
267. Garrett\* M, S Nerkowski, S Kieran, N Campbell, S Barbosa, C Conway, P Hohenlohe, LP Waits (2024) Development and validation of a GT-seq panel for genetic monitoring in a threatened species using minimally invasive sampling. *Ecology and Evolution* 14(5): e11321.
266. Helmstetter\* NA, CJ Conway, S Roberts, JR Adams, PD Makela, LP Waits (2024). Predator-specific mortality of sage-grouse nests based on predator DNA on eggshells. *Ecology and Evolution* 14(10): e70213.
265. Paprocki\* N., S Blair, CJ Conway, J Adams, S Nerkowski, S., J Kidd, LP Waits (2024). Comparison of Seven DNA Metabarcoding Sampling Methods to Assess Diet in a Large Avian Predator. *Environmental DNA* 6(4): e70000.
264. Helmstetter\* N. A., Conway, C. J., Roberts, S., Makela, P. D., & Waits, L. P. (2024). The Influence of Grazing on the Spatiotemporal Activity Patterns of a Primary Sage-Grouse Nest Predator. *Rangeland Ecology & Management*.
263. Rebholdtz\* P, LP Waits, D Ausband (in press) Cooperative breeding behavior of gray wolves makes them more vulnerable to harvest. *Wildlife Society Bulletin*
262. Fetherston\* SC, RC Lonsinger, LB Perkins, CP Lehman, JR Adams, LP Waits (2024). Genetic analysis of harvest samples reveals population structure in a highly mobile generalist carnivore. *Ecology and Evolution* 14(5): e11411.
261. Williams\* A, LP Waits, JR Adams, DS Jachowski (2023). Dietary overlap of sympatric terrestrial mammalian carnivores within coastal impoundments of South Carolina. *Southeastern Naturalist*, 22, 481-497.

260. Von Duyke, AL, JA Crawford, L Quakenbush, JR Adams, LP Waits (2023). Determination of polar bear (*Ursus maritimus*) individual genotype and sex based on DNA extracted from paw-prints in snow. *Frontiers in Conservation Science*, 4, 1166279.
259. Grossfurthner\* LP, ER Milano, PA Hohenlohe, LP Waits, BA Richardson (2023). Population structure and hybridization under contemporary and future climates in a heteroploid foundational shrub species (*Artemisia tridentata*). *Frontiers in Plant Science*, 14, 1155868.
258. Tumendemberel\* O, SA Hendricks, PA Hohenlohe, J Sullivan, A Zedrosser, M Sæbø, MF Proctor, JL Koprowski, LP Waits (2023) Range-wide evolutionary relationships and historical demography of brown bears (*Ursus arctos*) revealed by whole-genome sequencing of isolated central Asian populations. *Molecular Ecology* 32: 5156-5169.
257. Barnes TM, Karlin, M., Adams, J.R., Waits, L.P., Hinton, J.W., Henderson, J. and Brzeski, K.E. (in press) Significant amounts of red wolf ancestry detected in a population of coyotes on Galveston Island, Texas. *Ecology and Evolution*
256. Andrews KR, T Seaborn, JP Egan, MW Fagnan, DD New, Z Chen, PA Hohenlohe, LP Waits, CC Caudill, SR Narum (2023) Whole genome resequencing identifies local adaptation associated with environmental variation for redband trout. *Molecular Ecology* 32:800-818.
255. Ray, A.M., Spear, S.F., Girdner, S.F., Buktenica, M.W., Hering, D.K., Torresdal, J.D., Parker, M.S. And Waits, L.P. (2022) Do newts at crater lake represent a distinctly evolving population of rough-skinned newts? *Herpetological Conservation and Biology* 17:521-538.
254. Lok S, T Lau, B Trost, M Enstrom, E Stacy, LP Waits, M Scrafford, SW Scherer (2022) A Resource for Conservation Genomics: A Chromosomal-Level Reference Genome Assembly of the North American Wolverine (*Gulo gulo luscus*). *G3*, 12(8), p.jkac138.
253. vonHoldt BM, JW Hinton, AC Shutt, S Murphy, ML Karlin, JR Adams, LP Waits, KE Brzeski (2022) Reviving ghost alleles: Genetically admixed coyotes along the American Gulf Coast are critical for saving the endangered red wolf. *Science Advances* 8(26): p.eabn7731
252. Ordóñez-Delgado L, C Iñiguez-Armijos, M Díaz, A Escudero, E Gosselin\*, LP Waits, CI Espinosa (2022) The Good, the Bad, and the Ugly of Urbanization: Response of a Bird Community in the Neotropical Andes. *Frontiers in Ecology and Evolution*:227.
251. Chen Z, L Grossfurthner\*, JL Loxterman, J Masingale\*, BA Richardson, T Seaborn, B Smith\*, LP Waits, SR Narum (2022) Applying genomics in assisted migration under climate change: Framework, empirical applications, and case studies. *Evolutionary Applications* 15:3-21.
250. Laikre L, Hohenlohe PA, Allendorf FW, Bertola LD, Breed MF, Bruford MW, Funk WC,...LP Waits, C Vernnesi, S Hoban (2021) Authors' Reply to Letter to the Editor: Continued improvement to genetic diversity indicator for CBD. *Conservation Genetics*. 22: 533–536.
249. Salom-Pérez\* R, C Wultsch, JR Adams, S Soto-Fournier, GA Gutiérrez-Espeleta, LP Waits (2022) Genetic diversity and population structure for ocelots (*Leopardus pardalis*) in Costa Rica. *Journal of Mammalogy* 103:68-81.
248. Kupferman\* CA, AP Crupi, LP Waits, SL Gilbert (2021) Spatial and temporal partitioning of mustelids in Southeast Alaska. *Ecosphere* 12(11), p.e03827.

247. Murphy SM, JR Adams, LP Waits, JJ Cox (2021) Evaluating otter reintroduction outcomes using genetic spatial capture-recapture modified for dendritic networks. *Ecology and evolution*, 11: 15047-15061.
246. Bishop C, LP Waits, J Mawdsley (2021) A place for universities on the map. *Wildlife Professional*. 15:43-47.
245. Alshwairikh YA\*, SL Kroeze\*, J Olsson\*, SA Stephens-Cardenas, WL Swain\*, LP Waits, RL Horn, SR Narum, and T Seaborn. (2021) Influence of Environmental Conditions at Spawning Sites and Migration Routes on Adaptive Variation and Population Connectivity in Chinook Salmon. *Ecology and Evolution*. 11:16890–16908.
244. Barbosa S, Andrews K, Goldberg A, Gour D, Hohenlohe P, Conway C, Waits L. (2021) The role of neutral and adaptive genomic variation in population diversification and speciation in two ground squirrel species of conservation concern. *Molecular Ecology* 30:4673-4694.
243. Tumendemberel\* O, JM Tebbenkamp, A Zedrosser, MF Proctor, EJ Blomberg, DJ Morin, F Rosell, HV Reynolds, JR Adams, LP Waits (2021) Long-term monitoring using DNA sampling reveals the dire demographic status of the critically endangered Gobi bear. *Ecosphere* 12(8), e03696.
242. Barbosa S, KR Andrews, R Harris, D Signh-Gour, JR Adams, EF Cassirer, H Miyasaki, HM Schwantje, LP Waits (2021) Genetic diversity and divergence among Bighorn Sheep from reintroduced herds in Washington and Idaho. *Journal of Wildlife Management* 85:1214-1231.
241. Lonsinger RC, RN Knight, LP Waits (2021) Detection criteria and post-field sample processing influence results and cost efficiency of occupancy-based monitoring. *Ecological Applications* 31(7), e02404.
240. Pugsek ^, G, M Mumma, S Mahoney, LP Waits (2021) Molecular evaluation of black bear abundance and prey consumption following diversionary feeding. *Ursus* 32e14: 1-11.
239. Hudon\* SF, EP Hurtado, JD Beck, SJ Burden, DP Bendixsen, KR Callery, JS Forbey, LP Waits, RA Miller, JA Heath, EJ Hayden (2021) Primers to highly conserved elements optimized for qPCR-based telomere length measurement in vertebrates. *Molecular Ecology Resources* 21: 59-67.
238. Martin\* KR, LP Waits, CE Parent (2021) Teaching an old shell new tricks: Extracting DNA from current, historic and ancient mollusk shells. *Bioscience* 71:235-248
237. Martin A, EF Cassirer, LP Waits, RK Plowright, PC Cross, KR Andrews (2021) Genomic association with pathogen carriage in bighorn sheep (*Ovis canadensis*). *Ecology and Evolution* 11:2488-2502
236. Lonsinger RC, Kluever BM, Hall LK, Larsen RT, Gese EM, Waits LP, Knight RN (2020) A review and recommendations for conservation of kit foxes in the Great Basin Desert. *Journal of Fish and Wildlife Management* 11 (2): 679–698.
235. Woodruff SP, DR Eacker, LP Waits (2020) Estimating coyote densities with local, discrete Bayesian capture-recapture models. *Journal of Wildlife Management*. 85:73-86

234. Bassing SB, DE Ausband, MS Mitchell, MK Schwartz, JJ Nowak, GC Hale, LP Waits (2020) Immigration does not offset harvest mortality in groups of a cooperatively breeding carnivore. *Animal Conservation* 23:750–761.
233. Hoban, S., Bruford, M., Jackson, J. D. U., Lopes-Fernandes, M., Heuertz, M., Hohenlohe, P. A., LP Waits... & Aitken, S. (2020). Genetic diversity targets and indicators in the CBD post-2020 Global Biodiversity Framework must be improved. *Biological Conservation*, 248: 108654.
232. Ausband, DE, LP Waits. (2020). Does harvest affect genetic diversity in grey wolves? *Molecular Ecology*, 29:3187-3195.
231. Goldberg AR, CJ Conway, DC Tank, KR Andrews, DS Gour, LP Waits (2020) Diet of a rare herbivore based on DNA metabarcoding of feces: Selection, seasonality, and survival. *Ecology and evolution*. 10:7627-7643.
230. Balkenhol N\*, MK Schwartz, RM Inman, JP Copeland, JS Squires, NJ Anderson, LP Waits (2020) Landscape genetics of wolverines (*Gulo gulo*): Scale-dependent effects of bio-climatic, topographic and anthropogenic variables. *Journal of Mammalogy* 101:790-803.
229. Clendenin\* HR, JR Adams, DE Ausband, JA Hayden, PA Hohenlohe, LP Waits (2020) Combining harvest and genetics to estimate reproduction in wolves. *Journal of Wildlife Management* 84:492-504.
228. Wirsing AJ, TP Quinn, JR Adams, LP Waits (2020) Optimizing selection of brown bear hair for noninvasive genetic analysis. *Wildlife Society Bulletin* 44:94-100.
227. Weigel DE, JR Adams, MA Jepson, LP Waits, CC Caudill (2019) Introgressive hybridization between native and non-local steelhead (*Oncorhynchus mykiss*). *Aquatic Conservation: Marine and Freshwater Ecosystems* 29(2), 292-302.
226. Lonsinger RC\*, P Lukacs, E Gese, LP Waits (2019) Empirical comparisons of abundance estimators for two sympatric carnivores using noninvasive genetic sampling. *Wildlife Biology* 1:
225. Morin DJ, SD Higdon, RC Lonsinger, EN Gosselin, MJ Kelly, LP Waits (2019) Comparing Methods of Estimating Carnivore Diets with Uncertainty and Imperfect Detection. *Wildlife Society Bulletin* 43:651-660.
224. Mumma MA, G Bastille-Rousseau, SE Gullage, CE Soulliere, SP Mahoney, LP Waits (2019) Intrinsic traits of woodland caribou *Rangifer tarandus* caribou calves depredated by black bears *Ursus americanus* and coyotes *Canis latrans*. *Wildlife Biology* 1.
223. Seaborn T, SS Hauser, L Konrade, LP Waits, CS Goldberg (2019) Landscape genetic inferences vary with sampling scenario for a pond-breeding amphibian. *Ecology and evolution*. 9(9):5063-5078.
222. Lonsinger RC, D Daniel, JR Adams, LP Waits (2019) Consideration of sample source for establishing reliable genetic microsatellite data from mammalian carnivore specimens held in natural history collections. *Journal of Mammalogy*. 100(5):1678-89.
221. Tumendemberel O, Zedrosser A, Proctor MF, Reynolds HV, Adams JR, Sullivan JM, Jacobs SJ, Khorloojav T, Tserenbataa T, Batmunkh M, Swenson JE, LP Waits (2019) Phylogeography,

- genetic diversity, and connectivity of brown bear populations in Central Asia. *PloS one*. 14(8): e0220746
220. Nathan LR, N Mamoozadeh, HR Tumas, S Gunselman, K Klass, A Metcalfe, C Edge, LP Waits, P Spruell, E Lowery, E Connor, AR Bearlin, M-J Fortin, E Landguth (2019) A spatially-explicit, individual-based demogenetic simulation framework for evaluating hybridization dynamics. *Ecological Modelling* 401:40-51.
219. Karmacharya D, P Manandhar, S Manandhar, AM Sherchan, AN Sharma, J Joshi, M Bista, S Bajracharya, NP Awasthi, N Sharma, B Llewellyn, LP Waits et al. (2019) Gut microbiota and their putative metabolic functions in fragmented Bengal tiger population of Nepal. *PloS one*. 14(8): e0221868
218. Bassing SB, DE Ausband, MS Mitchell, P Lukacs, A Keever, G Hale, & LP Waits. (2019). Stable pack abundance and distribution in a harvested wolf population. *Journal of Wildlife Management* 83: 577-590.
217. Monterroso P, R Godinho, T Oliveira, P Ferreras, MJ Kelly, DJ Morin, LP Waits, PC Alves, LS Mills (2019) Feeding ecological knowledge: the underutilised power of faecal DNA approaches for carnivore diet analysis. *Mammal Review* 49: 97-112.
216. Lonsinger\* R, Lukacs, P, Gese, E, Knight, R, Waits, L (2018) Estimating densities for sympatric kit foxes (*Vulpes macrotis*) and coyotes (*Canis latrans*) using noninvasive genetic sampling. *Canadian Journal of Zoology* 96: 1080–1089.
215. Lonsinger\* RC, JR Adams, LP Waits (2018). Evaluating effective population size and genetic diversity of a declining kit fox population using contemporary and historical specimens. *Ecology and Evolution* 8:12011-12021.
214. Murphy SM, BC Augustine, JR Adams, LP Waits, JJ Cox (2018). Integrating multiple genetic detection methods to estimate population density of social and territorial carnivores. *Ecosphere*, 9: e02479.
213. Murphy, S. M., Adams, J. R., Cox, J. J., & Waits, L. P. (2018). Substantial red wolf genetic ancestry persists in wild canids of southwestern Louisiana. *Conservation Letters*, e12621.
212. Wirsing AJ, TP Quinn, CJ Cunningham, JR Adams, AD Craig, LP Waits (2018). Alaskan brown bears (*Ursus arctos*) aggregate and display fidelity to foraging neighborhoods while preying on Pacific salmon along small streams. *Ecology and Evolution* 8: 9048-9061.
211. Karmacharya D, AM Sherchan, S Dulal, P Manandhar, S Manandhar, J Joshi, S Bhattarai, TR Bhatta, N Awasthi, AN Sharma, M Bista, NR Silwal, P Pokharel, RR Lamichhane, N Sharma, B Llewellyn, MJ Kelly, D Gour, LP Waits, JM Hero, J Hughes (2018) Species, sex and geo-location identification of seized tiger (*Panthera tigris tigris*) parts in Nepal- a molecular forensic approach. *PLOS one* 13(8):e0201639.
210. Andrews K.R., De Barba M., Russello M.A., Waits L.P. (2018) Advances in Using Non-invasive, Archival, and Environmental Samples for Population Genomic Studies. In: . *Population Genomics*. Springer, Cham. [https://doi.org/10.1007/13836\\_2018\\_45](https://doi.org/10.1007/13836_2018_45)

209. Andrews KR, JR Adams, EF Cassirer, RK Plowright, C Gardner, M Dwire, PA Hohenlohe, LP Waits (2018) A bioinformatic pipeline for identifying informative SNP panels for parentage assignment from RADseq data. *Molecular Ecology Resources* 18:1263-1281.
208. Hendricks\* SA, RM Schweizer, RJ Harrigan, JP Pollinger, R Brown, K Mansfield, JR Adams, LP Waits, BM vonHoldt, PA Hohenlohe, RK Wayne (2018) Natural re-colonization and admixture of wolves (*Canis lupus*) in the US pacific northwest. *Heredity*. DOI: 10.1038/s41437-018-0094-x
207. Thapa\* K, S Manandhar, M Bista, J Shakya, G Sah, M Dhakal, N Sharma, B Llewellyn, LP Waits, MJ Kelly, D Karmacharya (2018) Assessment of genetic diversity, genetic structure, and gene flow of tigers (*Panthera tigris tigris*) in the Terai Arc Landscape, Nepal. *PLoS One* 13(3): e0193495.
206. Woodruff\* S, P Lukacs, LP Waits (2018) Comparing Performance of Multiple Noninvasive Genetic Capture-Recapture Methods for Abundance Estimation: A Case Study from Sonoran Pronghorn. *Oryx* DOI: 10.1017/S003060531800011X
205. Carroll EL, MW Bruford, A DeWoody, G Leroy, A Strand, LP Waits, J Wang (2018) Genetic and genomic monitoring with minimally invasive sampling methods. *Evolutionary Applications* 11:1097-1119.
204. Sanfiorenzo\* A, M Sanfiorenzo, R Vargas, L Waits, B Finegan (2018) Potential Pollinators of understory populations of *Symphonia globulifera* in the Neotropics. *Journal of Pollination Ecology* 22:1-10.
203. Byerly^ PA, RC Lonsinger\*, EM Gese, AJ Kozlowski, LP. Waits (2018) Resource partitioning between two sympatric canids: a comparison of historical and contemporary dietary overlap. *Canadian Journal of Zoology*. 96: 497–504.
202. Rayl\* ND, G Bastille-Rousseau, JF Organ, MA Mumma, SP Mahoney, CE Soulliere, KP Lewis, RD Otto, DL Murray, LP Waits, TK Fuller (2018) Spatiotemporal heterogeneity in prey abundance and vulnerability shapes the foraging tactics of an omnivore. *Journal of Animal Ecology* 87:874-887.
201. Draper\* JP, Waits LP, Adams JR, Seals CL, Steury TD (2017) Genetic health and population monitoring of two small black bear (*Ursus americanus*) populations in Alabama, with a regional perspective of genetic diversity and exchange. *PLoS ONE*12(11): e0186701.
200. Leroy G, EL Carroll EL, MW Bruford, JA Dewoody, A Strand, LP Waits, J Wang (2018) Next-generation metrics for monitoring genetic erosion within populations of conservation concern. *Evolutionary Applications* 11:1066-1083.
199. Morin\* D , LP. Waits, DC McNitt, MJ Kelly (2018) Efficient single-survey estimation of carnivore density using fecal DNA and spatial capture-recapture: a bobcat case study. *Population Ecology* 60:197-209.
198. Plowright RK, K Manlove, TE Besser, D Paez, KR Andrews, PE Matthews, LP Waits, PJ Hudson, EF Cassirer. (2017) Age-structured variation in infectious period explains epidemiological features of pneumonia in bighorn sheep. *Ecology Letters* 20:1325-1336.

197. Mumma\* M, J. Holbrook, N Rayl, C Zieminski , T Fuller, J Organ, S Mahoney, LP Waits (in press) Testing predictions of the intraguild predation hypothesis in an altered predator complex. *Oecologia*
196. Cleary\* KA, LP Waits, Bryan Finegan (2017) Comparative landscape genetics of two frugivorous bats in a biological corridor undergoing agricultural intensification. *Molecular Ecology* 26:4603–4617.
195. Rhoades\* P, T Griswold, LP Waits, NA Bosque-Pérez, CM Kennedy, SD Eigenbrode (2017) Sampling technique affects detection of habitat factors influencing wild bee communities. *Journal of Insect Conservation* 21:703-714.
194. Bohling JH, LL Mastro, JR Adams, EM Gese, SF Owen, LP Waits (2017) Panmixia and Limited Interspecific Introgression in Coyotes (*Canis latrans*) from West Virginia and Virginia, USA. *Journal of Heredity* 108:608-617
193. Zero\* V, A Barocas\*, D Jochimsen\*, A Pelletier, X Giroux-Bougard, D Trumbo, J Castillo, D Evans Mack, M Linnell, Rachel Pigg, J Hoisington-Lopez, S Spear, M Murphy, LP Waits (2017) Complementary network-based approaches for exploring genetic structure and functional connectivity in two vulnerable, endemic ground squirrels. *Frontiers in Genetics* 8:81.  
doi: 10.3389/fgene.2017.00081
192. Ausband D, MS. Mitchell, LP Waits (2017) Effects of breeder turnover and harvest on group composition and recruitment in a social carnivore. *Journal of Animal Ecology* 86: 1094–1101.
191. Ausband D, MS. Mitchell, CR Stansbury, JL Stenglein, LP Waits (2017) Harvest and group effects on pup survival in a cooperative breeder. *Proceedings of the Royal Society London, Series B* 284: 20170580.
190. Lonsinger\* RC, EM Gese, LL Bailey, LP Waits (2017) The roles of habitat and intraguild predation by coyotes on the spatial dynamics of kit foxes. *Ecosphere* 8: e01749.
189. Hohenlohe PA, LY Rutledge, LP Waits, KR Andrews, JR Adams, JW Hinton, RM Nowak, BR Patterson, AP Wydeven, BN White, PA Wilson (2017) Whole-genome data do not support recent hybrid origins of red wolves and eastern wolves (response). *Science Advances* 3: e1602250.
188. \*DeMay SD, PA Becker, JL Rachlow, LP Waits (2017) Genetic monitoring of an endangered species recovery: demographic and genetic trends for reintroduced pygmy rabbits (*Brachylagus idahoensis*). *Journal of Mammalogy* 98: 350-364
187. \*Borg NJ, MS Mitchell, PM Lukacs, CM Mack, LP Waits, PR Krausman (2017) Behavioral connectivity among bighorn sheep groups suggests potential for disease spread. *Journal of Wildlife Management* 81: 38-45.
186. ^Gosselin EN, R Lonsinger, LP Waits (2017) Comparing Morphological and Molecular Diet Analyses and Fecal DNA Sampling Protocols for a Terrestrial Carnivore. *Wildlife Society Bulletin*. 41:362-369.
185. Sparkman AM, M Blois, J Adams, L Waits, DA Miller, DL Murray (2017) Evidence for sex-specific reproductive senescence in monogamous cooperatively breeding red wolves. *Behavioral Ecology and Sociobiology* 71:6

184. Karmacharya D, S Manandhar, J Shakya, K Thapa, M Bista, GP Sah, AN Sharma, A Sherchan, M Dhakal, J-M Hero, J Hughes, J Janecka, M Kelly, LP Waits (2016) Incidental discovery of non-focal carnivore species during genetic study of Bengal tiger (*Panthera tigris tigris*) and snow leopard (*Panthera uncia*) in Nepal. *Asian Journal of Conservation Biology* 5:81-88.
183. Morin DJ, SD Higdon, JL Holub, DM Montague, ML Fies, LP Waits, MJ Kelly (2016) Bias in carnivore diet analysis resulting from misclassification of predator scats based on field identification. *Wildlife Society Bulletin* 40:669-677.
182. Craig E, JR Adams, LP Waits, MR Fuller, DM Whittington (2016) Nuclear and mitochondrial DNA analyses of Golden Eagles (*Aquila chrysaetos canadensis*) from three regions in Western North America; initial results with conservation implications. *PLOS ONE* 11(10): e0164248.
181. Bohling JH, J Dellinger, JM McVey, DT Cobb, CE Moorman, LP Waits (2016) Describing a developing hybrid zone between red wolves and coyotes in eastern North Carolina, USA. *Evolutionary Applications*. 9(6): 791–804.
180. DeMay SM, PA Becker, LP Waits, TR Johnson, JL Rachlow (2016) Consequences for conservation: population density and genetic effects on reproduction of an endangered lagomorph *Ecological Applications* 26:784-795.
179. Stansbury CR, DE Ausband, P Zager, CM Mack, LP Waits (2016) Identifying Gray Wolf Packs and Dispersers Using Noninvasive Genetic Samples. *Journal Wildlife Management* 80:1408-1419.
178. Goldberg CS, CR Turner, K Deiner, KE Klymus, PF Thomsen, MA Murphy, SF Spear, A McKee, SJ Oyler-McCance, RS Cornman, MB Laramie, AR Mahon, RF Lance, DS Pilliod, KM Strickler, LP Waits, AK Fremier, T Takahara, JE Herder, P Taberlet (2016) Critical considerations for the application of environmental DNA methods to detect aquatic species. *Methods in Ecology and Evolution* 7:1299–1307.
177. Cleary, KC, LP Waits, P Hohenlohe (2016) Development and characterization of fourteen novel microsatellite markers for the chestnut short-tailed fruit bat (*Carollia castanea*), and cross-amplification to related species. *PeerJ* 4:e2465 <https://doi.org/10.7717/peerj.2465>
176. Woodruff\* S, T Johnson, LP Waits (2016) Examining the use of faecal pellet morphometry to differentiate age classes in Sonoran pronghorn. *Wildlife Biology* 22:217-227.
175. Woodruff\* S, P Lucaks, D Christianson, LP Waits (2016) Estimating endangered Sonoran pronghorn (*Antilocapra americana sonoriensis*) abundance and survival using fecal DNA and capture-recapture methods. *Conservation Biology* 30:1102-1111.
174. Bosque-Pérez NA, PZ Klos\*, JE Force, LP Waits, K Cleary\*, P Rhoades\*, SM Galbraith\*, AL Bentley Brymer\*, M O'Rourke, SD Eigenbrode, B Finegan, JD Wulforst, N Sibelet, JD Holbrook\* (2016) A pedagogical model for team-based, problem focused interdisciplinary doctoral education. *Bioscience* 66: 477-488.
173. Eigenbrode SD, Davis S, J Adams, D Husebye\*, LP Waits, D Hawthorne (2016) Host-adapted aphid populations differ in their migratory patterns and capacity to colonize crops. *Journal of Applied Ecology* 53:1382-1390.



172. Mesa Cruz\* JB, J Brown, LP Waits, M Kelly (2016) Non-invasive genetic sampling reveals diet shifts, but little difference in endoparasite richness and faecal glucocorticoids, in Belizean felids inside and outside protected areas. *Journal of Tropical Ecology*. 32:226–239
171. Rhoades\* PR, JB Koch, LP Waits, JP Strange, S Eigenbrode (2016) Evidence for *Bombus occidentalis* (Hymenoptera: Apidae) Populations in the Olympic Peninsula, the Palouse Prairie, and Forests of Northern Idaho. *Journal of Insect Science* DOI: <http://dx.doi.org/10.1093/jisesa/iev155>
170. Cleary K, B Finegan, LP Waits (2016) Agricultural intensification alters bat community composition and abundance in a dynamic Neotropical landscape. *Biotropica* 48:667-676.
169. Morin DJ, MJ Kelly, LP Waits (2016) Monitoring Coyote Population Dynamics With Fecal DNA and Spatial Capture–Recapture. *Journal of Wildlife Management* 80:824-836.
168. Wultsch\* C, LP Waits, MJ Kelly (2016) A comparative analysis of genetic diversity and structure in jaguars (*Panthera onca*), pumas (*Puma concolor*), and ocelots (*Leopardus pardalis*) in fragmented landscapes of a critical Mesoamerican linkage zone. *PLoS ONE* 11(3): e0151043. doi:10.1371/journal.pone.0151043
167. Lonsinger\* RC, E Gese, RN Knight, TR Johnson, LP Waits (2016) Quantifying and correcting for scat removal in noninvasive carnivore scat surveys. *Wildlife Biology*. 22:45-54.
166. Lonsinger\* RC, LP Waits (2015) ConGenR: rapid determination of consensus genotypes and estimates of genotyping errors from replicated genetic samples. *Conservation Genetic Resources* 7:841-843.
165. Beckmann JP, LP Waits, A Hurt, A Whitelaw, S Bergen (2015) Using detection dogs and RSPF models to assess habitat suitability for bears in Greater Yellowstone. *Western North American Naturalist* 75(4):396-405
164. Metzger\* G, A Espindola\*, LP Waits, J Sullivan (2015) Genetic Structure across Broad Spatial and Temporal Scales: Rocky Mountain Tailed Frogs (*Ascaphus montanus*; Anura: Ascaphidae) in the Inland Temperate Rainforest. *Journal of Heredity* 106:700-710.
163. Xenikoudakis\* G E Ersmark, J.-L. Tison, LP Waits, J Kindberg, JE Swenson, L Dalen (2015) Consequences of a demographic bottleneck on genetic structure and variation in the Scandinavian brown bear. *Molecular Ecology* 24:3441-54.
162. Dempsey\* SJ, EM Gese, BM Kluever\*, RC Lonsinger\*, LP Waits (2015) Evaluation of Scat Deposition Transects versus Radio Telemetry for Developing a Species Distribution Model for a Rare Desert Carnivore, the Kit Fox. *PLOS one* 10:e0138995.
161. Mumma\* MA, JR Adams, C Zieminski\*, T Fuller, SP Mahoney, LP Waits (2015) A comparison of morphological and molecular food habit analyses of predator scats. *Journal of Mammalogy* 160:112-120.
160. Gese EM, FF Knowlton, JR Adams, K Beck, TK Fuller, DL Murray, T Steury, MK Stoskopf, W Waddell, LP Waits (2015) Managing hybridization in endangered species recovery: The case of the red wolf. *Current Zoology* 61:191-205.

159. Lonsinger\* RC, EM Gese, LP Waits (2015) Evaluating the reliability of field identification and morphometric classifications for carnivore scats confirmed with genetic analysis. *Wildlife Society Bulletin* 39:593-602.
158. Mumma\* MA, C Zieminski\*, T Fuller, SP Mahoney, LP Waits (2015) Evaluating noninvasive genetic sampling techniques to estimate large carnivore abundance. *Molecular Ecology Resources* 15: 1133–1144.
157. Spear SF, JD Groves, LA Williams, LP Waits (2015) Using environmental DNA methods to improve detectability in a hellbender (*Cryptobranchus alleganiensis*) monitoring program. *Biological Conservation* 183:38-45.
156. Wultsch\*, C, LP Waits, E Hellgren, M Kelly (2015) Optimizing collection methods for noninvasive genetic sampling of neotropical felids. *Wildlife Society Bulletin* 39:403–412.
155. Ausband D, Stansbury\* CR, JL Stenglein, JL Struthers, LP Waits (2015) Recruitment in a social carnivore before and after harvest. *Animal Conservation* 18:415-423.
154. \*Woodruff S, T Johnson, LP Waits (2015) Evaluating the interaction of faecal pellet deposition rates and DNA degradation rates to optimize sampling design for DNA-based mark-recapture analysis of Sonoran pronghorn. *Molecular Ecology Resources* 15:843-854.
153. \*DeMay SM, JL Rachlow, LP Waits, PA Becker (2015). Comparing telemetry and fecal DNA sampling methods to quantify survival and dispersal of juvenile pygmy rabbits. *Wildlife Society Bulletin*. 39:413-421.
152. \*Shaver I, A Chain-Guadarrama\*, K Cleary\*, A Sanfiorenzo\*, R Santiago-Garcia\*, B Finegan, L Hormel, N Sibelet, LA Vierling, N Bosque-Perez, ME Fagan, F DeClerck, LP Waits (2015) Coupled Social and Ecological Outcomes of Agricultural Intensification in Costa Rica and the Future of Biodiversity Conservation in Tropical Agricultural Regions. *Global Environmental Change* 32:74-86
151. Lonsinger\* RC, EM Gese, SJ Dempsey, BM Kluever, TR Johnson, LP Waits (2015) Balancing sample accumulation and DNA degradation rates to optimize noninvasive genetic sampling of sympatric carnivores. *Molecular Ecology Resources* 15:831-842.
150. Murray, DL, G Bastille-Rousseau\*, JR Adams, LP Waits (2015) The Challenges of Red Wolf Conservation and the Fate of an Endangered Species Recovery Program. *Conservation Letters* 8:338-344.
149. \*Bohling JH, A Beyer, LP Waits (2015) Factors influencing red wolf-coyote hybridization in eastern North Carolina. *Biological Conservation* 184:108-116.
148. \*Woodruff, S, JR Adams, T Johnson, LP Waits (2014) Rapid species identification of Sonoran pronghorn (*Antilocapra americana sonoriensis*) from fecal pellet DNA. *Wildlife Society Bulletin* 38:842-848.
147. \*Schwalm D, LP Waits, WB Ballard (2014) Little fox on the prairie: genetic structure and diversity throughout the distribution of a grassland carnivore in the United States. *Conservation Genetics* 15:1503-1514.

146. \*Brzeski KE, DR Rabon, Jr, MJ Chamberlain, LP Waits, SS Taylor (2014) Inbreeding and Inbreeding Depression in Endangered Red Wolves (*Canis rufus*). *Molecular Ecology* 23:4241-4255.
145. De Barba M, JR Adams, CS Goldberg, CR Stansbury\*, D Arias^, R Cisneros, LP Waits (2014) Molecular species identification for multiple carnivores. *Conservation Genetics Resources* 6:821-824.
144. \*Wultsch, C, LP Waits, M Kelly (2014) Non-invasive individual and species identification of jaguars (*Panthera onca*), pumas (*Puma concolor*) and ocelots (*Leopardus pardalis*) in Belize, Central America using cross-species microsatellites and fecal DNA. *Molecular Ecology Resources* 14:1171-1182.
143. \*Seamster VA, LP Waits, SA Macko, HH Shugart (2014) Coyote (*Canis latrans*) mammalian prey diet shifts in response to seasonal vegetation change. *Isotopes in Environmental Health Studies* 50:343-60
142. \*Stansbury CR, DE Ausband, P Zager, CM Mack, LP Waits (2014) A long-term population monitoring approach for a wide-ranging carnivore: noninvasive genetic sampling of gray wolf rendezvous sites in Idaho, USA. *Journal of Wildlife Management* 78:1040-1049.
141. Davidson GA, DA Clark, BK Johnson, LP Waits (2014) Estimating Cougar Densities in northeast Oregon Using Scat Detection Dogs. *Journal of Wildlife Management* 78:1104-1114.
140. Estes-Zumpf, WA, SE Zumpf, JL Rachlow, J Adams, LP Waits (2014) First record of the Pygmy Rabbit (*Brachylagus idahoensis*) in Colorado. *Journal of Fish and Wildlife Management* 5:118-123.
139. Ausband, DE, LN Rich, EM Glenn, MS Mitchell, P Zager, DA Miller, LP Waits, BB Ackerman, CM Mack (2014) Monitoring Gray Wolf Populations Using Multiple Survey Methods. *Journal of Wildlife Management* 78:335-346.
138. \*Barnowe-Meyer, KK, PJ White, LP Waits, JA Byers (2014) Social and genetic structure associated with migration in pronghorn. *Biological Conservation* 168:108-115.
137. \*Balkenhol, N, ^JD Holbrook, D Onorato, P Zager, C White, J Rachael, R DeSimone, LP Waits (2014) Landscape connectivity and gene flow in a highly mobile generalist species: A multi-method approach for analyzing hierarchical genetic structures: a case study with cougars *Puma concolor*. *Ecography* 37:1-12.
136. Pilliod, DS, CS Goldberg, RS Arkle, LP Waits (2014) Factors Influencing Detection of eDNA from a stream dwelling amphibian. *Molecular Ecology Resources* 14:109-116.
135. \*Mumma, M, CE Soulliere, SP Mahoney, LP Waits (2014) Enhanced understanding of predator prey relationships using molecular methods to identify predator species, individual and sex. *Molecular Ecology Resources* 14:100-109.
134. ^Torstrom, SM, JR Adams, LP Waits (2013) Detecting pygmy rabbits (*Brachylagus idahoensis*) using DNA extracted from fecal pellets of mixed species groups. *Wildlife Society Bulletin* 37:603-607.

133. \*McVey, JM, DT Cobb, RA Powell, MK Stoskopf, \*JH Bohling, LP Waits, CE Moorman (2013) Evaluating food habits of co-occurring red wolves and coyotes using faecal DNA identification. *Journal of Mammalogy* 94:1141-1148.
132. Goldberg, CS, A Sepulveda, A Ray, J Baumgardt, LP Waits (2013) Environmental DNA as a New Method for Early Detection of New Zealand Mudsnaills (*Potamopyrgus Antipodarum*). *Freshwater Science* 32:792–800.
131. \*Demay, SM, PA Becker, CA Eidson, JL Rachlow, TR Johnson, LP Waits (2013) Evaluating DNA Degradation Rates in Faecal Pellets of the Endangered Pygmy Rabbit. *Molecular Ecology Resources* 13: 654–662.
130. Pilliod, DS, CS Goldberg, RS Arkle, LP Waits (2013) Estimating occupancy and abundance of stream amphibians using environmental DNA from filtered water samples *Canadian Journal of Fisheries and Aquatic Sciences* 70: 1123-1130.
129. Andrew, RL, L Bernatchez, A Bonin, CA Buerkle, BC Carstens, BC Emerson, D Garant..... LP Waits, A Widmer (2013) A Road Map for Molecular Ecology. *Molecular Ecology* 22: 2605–2626.
128. \*Baumgardt, JA, CS Goldberg, KP Reese, JW Connelly, DD Musil, EO Garton, LP Waits (2013) A method for estimating population sex ratio for sage-grouse using noninvasive genetic samples. *Molecular Ecology Resources* 13:393-402.
127. \*Sasmal, I, JA Jenks, LP Waits, MG Gonda, GM Schroeder, S Datta (2013) Genetic diversity in a reintroduced swift fox population. *Conservation Genetics* 14:93-102
126. \*Pennell, MW, CR Stansbury\*, LP Waits, CR Miller (2013) Capwire: a R package for estimating population census size from non-invasive genetic sampling. *Molecular Ecology Resources* 13:154-157.
125. \*Bohling, JH, JR Adams, LP Waits (2013) Evaluating the ability of Bayesian clustering methods to detect hybridization and introgression using an empirical red wolf data set. *Molecular Ecology* 22:74-86.
124. \*Skrbinšek, T, ^M Jelenčič, LP Waits, H Potočnik, I Kos, P Trontelj (2012) Using a reference population yardstick to calibrate and compare genetic diversity reported in different studies: an example from the brown bear. *Journal of Heredity* 109:299-305
123. Sparkman, A, JR Adams, T Steury, L Waits, D Murray (2012) Pack social dynamics and inbreeding avoidance in the cooperatively breeding red wolf. *Behavioral Ecology* 23:1186-1194.
122. \*Blair C, DE Weigel\*, M Balazik\*, ATH Keeley\*, FM Walker\*, N Balkenhol, E Landguth, S Cushman, M Murphy , LP Waits (2012) A simulation-based evaluation of methods for inferring linear barriers to gene flow. *Molecular Ecology Resources* 12:822-833.
121. Goldberg, CS, DC Tank, S Uribe-Convers, WR Bosworth, HE Marx, LP Waits (2012) Species designation of the Bruneau Dune tiger beetle (*Cicindela waynei*) is supported by phylogenetic analysis of mitochondrial DNA sequence data. *Conservation Genetics* 13:373-380.

120. \*Skrbinšek, T., M. Jelenčič<sup>^</sup>, LP Waits, I Kos, K Jerina, P Trontelj (2012) Monitoring the effective population size of a brown bear (*Ursus arctos*) population using new single-sample approaches. *Molecular Ecology* 21:862-875.
119. \*Graves, TA, TN Wasserman\*, M Ribeiro\*, EL Landguth, SF Spear, N Balkenhol, CB Higgins\*, M-J Fortin, SA Cushman, LP Waits (2012) The influence of landscape characteristics and home-range size on the quantification of landscape-genetics relationships. *Landscape Ecology* 27: 253-266.
118. Sparkman AM, LP Waits, DL Murray (2012) Evidence for a genetic basis for delayed dispersal in a cooperatively breeding canid. *Animal Behavior* 83:1091–1098.
117. \*Hoisington-Lopez, JL, LP Waits, J Sullivan (2012) Species limits and integrated taxonomy of the Idaho ground squirrel (*Urocitellus brunneus*): Genetic and ecological differentiation. *Journal of Mammalogy* 93:589-604.
116. Wagner HH, MA Murphy, R Holderegger, LP Waits (2012) Developing a distributed interdisciplinary graduate course for 21<sup>st</sup> century scientists. *Bioscience* 62:182-188.
115. \*Dunn, SJ, LP Waits, JA Byers (2012) Genetic versus census estimators of the opportunity for sexual selection in the wild. *The American Naturalist* 179: 451-462.
114. \*Dellinger, JA, TD Steury, BL Ortman, J Bohling\*, LP Waits (2011) Food habits of red wolves (*Canis rufus*) during pup-rearing season. *Southeastern Naturalist* 10:731-740
113. \*Dunn, SJ, E Clancey\*, LP Waits, JA Byers (2011) Inbreeding depression in pronghorn (*Antilocapra americana*) fawns. *Molecular Ecology* 20:4889-98.
112. Sparkman AM, LP Waits, DL Murray (2011) Social and Demographic Effects of Anthropogenic Mortality: A Test of the Compensatory Mortality Hypothesis in the Red Wolf. *PLoS ONE* 6: e20868.
111. Goldberg, CS, K Woodruff, R Toldness<sup>^</sup>, LP Waits (2011) Robust molecular sex identification of beaver (*Castor canadensis*) from non-destructive samples. *Conservation Genetics* 3:729–731.
110. Ausband, DE, J Young, B Fannin\*, MS Mitchell, JL Stenglein\*, LP Waits, JA Shivik (2011) Hair of the dog: obtaining samples from coyotes and wolves noninvasively. *Wildlife Society Bulletin* 35:105-111.
109. \*Goldberg CS, A Pocewicz\*, M Nielsen-Pincus\*, LP Waits, P Morgan, JE Force, LA Vierling (2011) Predictions of ecological and social impacts of alternative residential development policies to inform decision-making in a rural landscape. *Conservation Letters* 4:423-432.
108. Goldberg, CS, DS Pilliod, RS Arkle, LP Waits (2011) Molecular detection of cryptic vertebrate species in stream water. *Plos One* 6:e22746.
107. Adams, JR, CS Goldberg, WR Bosworth, JL Rachlow, LP Waits (2011) Rapid species identification of pygmy rabbits (*Brachylagus idahoensis*) from fecal pellet DNA. *Molecular Ecology Resources* 11:808-812.

106. \* Bohling JM, LP Waits (2011) Assessing the prevalence of hybridization between sympatric *Canis* species in a region surrounding the red wolf (*Canis rufus*) recovery area in North Carolina. *Molecular Ecology* 20: 2142-2156.
105. \*Stenglein JL, LP Waits, DE Ausband, P Zager, CM Mack (2011) Using noninvasive genetic sampling at grey wolf (*Canis lupus*) rendezvous sites to determine pack size, family relationships, and relatedness. *Journal of Mammalogy* 92:784-795.
104. ^Russell DM, CS Goldberg\*, L Sprague, LP Waits, DE Green, KL Schuler, EB Rosenblum (2011) Ranavirus outbreaks in amphibian populations of northern Idaho. *Herpetological Review* 42: 223-225.
103. ^Falcón-Linero W, CS Goldberg, LP Waits, WA Estes-Zumpf, JL Rachlow (2011) First record of multiple paternity in the pygmy rabbit (*Brachylagus idahoensis*): Evidence from analysis of 16 microsatellite loci. *Western North American Naturalist* 71:271-275.
102. Onorato, DP, R Desimone, C White, P Zager, LP Waits (2011) Genetic assessment of paternity and relatedness in a managed population of cougars: biological interpretation and management implications. *Journal of Wildlife Management* 75:378–384.
101. Sparkman A, JA Adams, T Steury, LP Waits, D Murray (2011) Helper effects on pup lifetime fitness in the cooperatively breeding red wolf (*Canis rufus*). *Proceedings of the Royal Society London, Series B* 278:1381-1389.
100. Sparkman A, JA Adams, T Steury, LP Waits, D Murray (2011) Direct fitness benefits of delayed dispersal in the cooperatively breeding red wolf (*Canis rufus*). *Behavioral Ecology* 22:199-205.
99. \*Waite JN, LP Waits, M Bozza, VN Burkanov, DG Calkins, RD Andrews (2011) Differentiating between Steller sea lion (*Eumetopias jubatus*) and northern fur seal (*Callorhinus ursinus*) scats through analysis of faecal DNA. *Molecular Ecology Resources* 11:166-170.
98. ^Russell D, C Goldberg, LP Waits, EB Rosenblum (2010) Batrachochytrium dendrobatidis infection dynamics in the Columbia Spotted Frog (*Rana luteiventris*) in north Idaho, USA. *Diseases of Aquatic Organisms* 92:223-230.
97. \*DeBarba M, LP Waits, EO Garton, P Genovesi, E Randi, R Chirichella, E Cetto (2010) The power of genetic monitoring for studying demography, ecology, and genetics of a reintroduced brown bear population. *Molecular Ecology* 19, 3938–3951.
96. Storfer A, \*Murphy M, Spear S, Holderegger R, Waits L (2010) Landscape Genetics: Where Are We Now? *Molecular Ecology* 19:3496-3514.
95. Sork, V and LP Waits (2010) Contributions of landscape genetics— approaches, insights, and future potential. *Molecular Ecology* 19:3489-3495.
94. \*Goldberg C, LP Waits (2010) Comparative landscape genetics of two pond-breeding amphibian species in a highly modified agricultural landscape. *Molecular Ecology* 19:3650 – 3633.
93. \*Dunn, SJ, KK Barnowe-Meyer, KJ Gebhardt, N Balkenhol\*, LP Waits, JA Byers (2010) Ten polymorphic microsatellite markers for pronghorn (*Antilocapra americana*). *Conservation Genetics Resources* 2:81-84.

92. Segelbacher G, Cushman SA, Epperson BK, Fortin M-J, Francois O, Hardy OJ, Holderegger R, Taberlet P, Waits LP, Manel S (2010) Applications of Landscape Genetics in Conservation Biology: Concepts and Challenges. *Conservation Genetics* 11:375-385.
91. \*Stenglein JL, M De Barba\*, DE Ausband, LP Waits (2010) Impacts of sampling location within a faeces on DNA quality in two carnivore species. *Molecular Ecology Resources* 10:109-114.
90. \*Estes-Zumpf W, JL Rachlow, LP Waits, KI Warheit (2010) Dispersal, gene flow, and population genetic structure in the pygmy rabbit (*Brachylagus idahoensis*). *Journal of Mammalogy* 91:208-219.
89. \*Goldberg CS, LP Waits (2010) Quantification and reduction of bias from sampling larvae to infer population and landscape genetic structure. *Molecular Ecology Resources* 10:304-313.
88. \*Nielsen-Pincus M, CS Goldberg\*, A Pocewicz\*. JE Force, LP Waits, P Morgan, L Vierling (2010) Predicted Effects of Residential Development on a Northern Idaho Landscape under Alternative Growth Management and Land Protection Policies. *Landscape and Urban Planning* 94:255-263
87. \*Skribinsek T, M Jelencic^, LP Waits, I Kos, P Trontelj (2010) Highly efficient multiplex PCR of noninvasive DNA does not require pre-amplification. *Molecular Ecology Resources* 10:495-501.
86. \*Stenglein JL, Waits LP, Ausband DE, Zager P, Mack C (2010) Efficient, Noninvasive Genetic Sampling for Monitoring Reintroduced Wolves. *Journal of Wildlife Management* 74:1050-1058.
85. \*De Barba, M, LP Waits (2010) Multiplex pre-amplification for noninvasive genetic sampling: is the extra effort worth it? *Molecular Ecology Resources* 10:659-665.
84. \*De Barba, M, LP Waits, P Genovesi, E Randi, R Chirichella, E Cetto (2010) Comparing opportunistic and systematic collection methods for noninvasive genetic monitoring of a small translocated brown bear population. *Journal of Applied Ecology* 47:172-181.
83. \*Viteri MP, LP Waits (2009) Identifying polymorphic microsatellite loci for future use in Andean bear research. *Ursus* 20:102-108
82. \*Goldberg, CS, TJ Hawley, LP Waits (2009) Local and regional patterns of amphibian chytrid prevalence on the Osa Peninsula, Costa Rica. *Herpetological Review* 40:309-311
81. \*Balkenhol N, LP Waits (2009) Molecular road ecology: exploring the potential of genetics for investigating transportation impacts on wildlife. *Molecular Ecology* 18: 4151–4164.
80. \*Balkenhol N, LP Waits, R Dezzani (2009) Statistical approaches in landscape genetics: An evaluation of methods for linking landscape and genetic data. *Ecography* 32:818-830.
79. \*Balkenhol N, Gugerli F, Cushman SA, Waits LP, Wagner HH, R Holderegger, A. Coulon (2009) Identifying Future Research Needs in Landscape Genetics: Where to From Here? *Landscape Ecology* 24:455-463.
78. \*Robinson, SJ, LP Waits, I Martin (2009) Estimating black bear abundance using DNA-based capture-mark-recapture models. *Ursus* 20:1-11.

77. Schwartz, MK, JP Copeland, NJ Anderson, JR Squires, RM Inman, KS McKelvey, KL Pilgrim, LP Waits, SA Cushman (2009) Wolverine gene flow across a narrow climatic niche. *Ecology* 90:3222-3232.
76. \*Knapp, SM, BA Craig, LP Waits (2009) Incorporating genotyping error into non-invasive DNA-based mark-recapture population estimates. *Journal of Wildlife Management*. 73:598-606.
75. \*Goldberg, CS, LP Waits (2009) Using habitat models to determine conservation priorities for pond-breeding amphibians in a privately-owned landscape of northern Idaho. *Biological Conservation* 142:1096-1104.
74. McCarthy, T, LP Waits, B Mijiddori (2009) Status of the Gobi bear in Mongolia as determined by non-invasive genetic methods. *Ursus* 20:30 – 38.
73. \*Gebhardt, KJ, D Brightsmith, G Powell, LP. Waits (2009) Maximizing DNA yield from molted feathers: A case study of parrots in the Peruvian Amazon rainforest. *Journal of Field Ornithology* 80:183-192
72. \*McCarthy, KP, TK Fuller, M Ming, TM McCarthy, LP Waits, K. Jumabaev (2008) Assessing estimators of snow leopard abundance. *Journal of Wildlife Management* 72:1826-1833.
70. Kendall, KC, JB Stetz, DA Roon\*, LP Waits, JB Boulanger, D. Paetkau (2008) Grizzly bear density in Glacier National Park. *Journal of Wildlife Management*. 72(8):1693–1705.
69. Vali, U, A Einarsson, LP Waits, H Elgren (2008) To what extent do microsatellite markers reflect genome-wide genetic diversity in natural populations? *Molecular Ecology* 17:3808-3813
68. \*Gebhardt, KJ, LP Waits (2008) High error rates for avian molecular sex identification primer sets applied to molted feathers. *Journal of Field Ornithology* 79:286-292.
67. \*Gebhardt, KJ, LP Waits (2008) Cross-species amplification and optimization of microsatellite markers for use in six Neotropical parrots. *Molecular Ecology Resources* 8:835 – 839.
66. Galbreath, GJ, M Hunt, T Clements, LP Waits (2008) An apparent hybrid bear from Cambodia. *Ursus* 19:85-86.
65. Boulanger, JB, KC Kendall, JB Stetz, DA Roon\*, LP Waits, D Paetkau (2008) Use of multiple data sources to improve DNA-based mark-recapture population estimates of grizzly bears. *Ecological Applications* 18:557-589.
64. \*Hansen T, S Brunsfeld, B Finegan, LP Waits (2008) Pollen Dispersal and Genetic Structure of the tropical tree *Dipteryx panamensis* in a fragmented Costa Rican landscape. *Molecular Ecology* 17:2060-2073.
63. \*Hansen, T, S Brunsfeld, B Finegan, LP Waits (2008) Characterization of microsatellite markers for the almendro (*Dipteryx panamensis*), a tetraploid rainforest tree. *Molecular Ecology Resources* 8:425-427.
62. \*Pocewicz, A, M Nielsen-Pincus\*, CS Goldberg\*, MH Johnson\*, P Morgan, JE Force, LP Waits, L Vierling (2008) Predicting landscape change: comparison of landowner decision and historically-based models. *Landscape Ecology* 23:195-210.



61. \*Estes-Zumplt, W, J Rachlow, LP Waits (2008) Ten polymorphic microsatellite markers for the pygmy rabbit (*Brachylagus idahoensis*). *Molecular Ecology Resources* 8:360-362.
60. \*Hansen, T, S Brunsfeld, B Finegan, LP Waits (2007) Conventional and genetic measures of seed dispersal for *Dipteryx panamensis* (Fabaceae) in continuous and fragmented Costa Rican rain forest. *Journal of Tropical Biology* 23:635-642.
59. \*Miller, CR, P Joyce, LP Waits (2007) Ordered vs. unordered samples: response to Bromghin. *Molecular Ecology* 16:4885.
58. \*Robinson, SJ, LP Waits, I Martin (2007) Evaluating population structure of black bears on the Kenai Peninsula using mitochondrial and nuclear DNA analyses. *Journal of Mammalogy* 88:1288-1299.
57. Murray, DL and LP Waits (2007) Taxonomic status and conservation strategy of the endangered red wolf: A response to Kyle et al. (2006). *Conservation Genetics* 8:1483-1485.
56. Galbreath, G, CP Groves, LP Waits (2007) Genetic resolution of the composition and phylogenetics placement of the Isabelline bear. *Ursus* 18:129-131.
55. \*Murphy, MA, K Kendall, A Robinson, C Perugini^, and LP Waits (2007) The impact of time and field conditions on brown bear fecal DNA amplification. *Conservation Genetics*. 8:1219-1224.
54. Manel, S, F Berthoud, E Bellemain\*, M Gaudeul, G Luikart, J Swenson, LP Waits, P Taberlet (2007) A new individual-based spatial approach for identifying genetic discontinuities in natural populations. *Molecular Ecology* 16:2031-2043.
53. \*Hicks J, J Rachlow, C Willams, OH Rhodes, LP Waits (2007) Reintroduction and genetic structure: Rocky Mountain elk in Yellowstone and the Western States. *Journal of Mammalogy* 88:129-138.
52. Waits, LP, VA Buckley-Beason\*, WE Johnson, D Onorato, T McCarthy (2007) A select panel of polymorphic microsatellite loci for individual identification of snow leopards (*Panthercia*). *Molecular Ecology Notes* 7:311—314.
51. \*Adams, JR, C Lucash, L Schutte, LP Waits (2007) Locating hybrid individuals in the red wolf (*Canis rufus*) experimental population area using a spatially targeted sampling strategy and faecal DNA genotyping. *Molecular Ecology* 16:1823-1834.
50. Storfer, A, M Murphy\*, JS Evans, CS Goldberg\*, S Robinson\*, SF Spear\*, R Dezzani, E Delmelle, L Vierling, LP Waits (2007) Putting the “landscape” in landscape genetics. *Heredity* 98:128-142.
49. Adams\* JR and LP Waits (2007) An efficient method for screening faecal DNA genotypes and detecting new individuals and hybrids in the red wolf (*Canis rufus*) experimental population area. *Conservation Genetics* 8:123-131.
48. Byers J, LP Waits (2006) Good genes and sexual selection in nature. *Proceedings of the National Academy of Sciences, USA* 103:16343-16345.
47. Kitchen\*, AM, EM Gese, LP Waits, SM Karki, ER Schauster (2006) Multiple breeding strategies in the swift fox, *Vulpes velox*. *Animal Behavior* 71:1029-1038.

46. Onorato, D, C White, P Zager, LP Waits (2006) Detection of predators via mtDNA analysis using hair and scat collected at elk calf mortality sites. *Wildlife Society Bulletin* 34:815-820.
45. Miller\*, CR, LP Waits, P Joyce (2006) Recent evolutionary history of the brown bear (*Ursus arctos*) in Southern Canada, the Contiguous United States, and Mexico. *Molecular Ecology* 15:4477 – 4485.
44. \*Bellemain, E, A Zedrosser, S Manel, P Taberlet, LP Waits, and JE Swenson (2006). The dilemma of female mate selection in the brown bear, a species with sexually selected infanticide. *Proceedings of the Royal Society London Series B* 273:283-291.
43. \*Cegelski, CC, LP Waits, NJ Anderson, CJ Kyle and C Strobeck (2006) Genetic diversity and population structure of wolverine (*Gulo gulo*) populations at the southern edge of their current distribution in North America with implications for genetic viability. *Conservation Genetics* 7:197-211.
42. Waits, LP and D Paetkau (2005, invited review) New non-invasive genetic sampling tools for wildlife biologists: a review of applications and recommendations for accurate data collection. *Journal of Wildlife Management* 69:1419-1433.
41. \*Garner, A, JL Rachlow, LP Waits (2005) Genetic diversity and population divergence in fragmented habitats: conservation of Idaho ground squirrels. *Conservation Genetics* 6:759 – 774.
40. Stoskopf, MK, K Beck\*, BB Fazio, TK Fuller, EM Gese, BT Kelly, FF Knowlton, DL Murray, W Waddell, LP Waits (2005) Implementing recovery of the red wolf: integrating research scientists and managers. *Wildlife Society Bulletin* 33:1145-1152.
39. Cronin, MA, S Shideler, LP Waits, RJ Nelson (2005) Genetic variation and relatedness in grizzly bears in the Prudhoe Bay region and adjacent areas in northern Alaska. *Ursus* 16:70-84.
38. Haroldson, M, K Gunther, D Reinhart, S Podrutzny, C Cegelski, L Waits, T Wyman, J Smith (2005) Changing number of spawning cutthroat trout in tributary streams of Yellowstone lake and estimates of grizzly bears visiting streams from DNA. *Ursus* 16:167-180.
37. Hedrick, PW and LP Waits (2005) What ancient DNA tells us. *Heredity* 94:463-464.
36. Kitchen\* AM, EM Gese, LP Waits, SM Karki, ER Schauster (2005) Genetic and spatial structure within a swift fox population. *Journal of Animal Ecology* 73:1173-1182.
35. \*Miller, CR, P Joyce, LP Waits (2005) Estimating the size of small populations using genetic mark-recapture. *Molecular Ecology* 14:1991-2005.
34. \*Roon, DA, LP Waits, KC Kendall (2005) A simulation test of the effectiveness of several methods for error-checking non-invasive datasets. *Animal Conservation* 8:203-215.
33. Roon\*, DA, ME Thomas^, KC Kendall, LP Waits (2005) Evaluating mixed samples as a source of error in non-invasive genetic studies. *Molecular Ecology* 14:195 – 199.
32. \*Felicetti, LA, CC Schwartz, RO Rye, KA Gunther, MA Haroldson, LP Waits, CT Robbins (2004) Use of naturally-occurring mercury to determine the importance of cutthroat trout to Yellowstone grizzly bears. *Canadian Journal of Zoology* 82:493-501.

31. \*Romain, K, R Wielgus, M Austin, L Waits, W Kasworm, W Wakkinen (2004) Density and population size estimates for North Cascade grizzly bears using DNA hair-sampling techniques. *Biological Conservation* 117:417-428.
30. \*Miller, CR, J Adams\*, LP Waits (2003) Pedigree based assignment tests for reversing coyote (*Canis latrans*) introgression into the wild red wolf (*Canis rufus*) population. *Molecular Ecology* 12: 3287-3301.
29. \*Cegelski, C, LP Waits, NJ Anderson (2003) Assessing population structure and gene flow in Montana wolverines (*Gulo gulo*) using assignment-based approaches. *Molecular Ecology* 12:2907-2918.
28. \*Murphy, MA, LP Waits, KC Kendall (2003) Impact of diet on faecal DNA amplification and sex identification brown bears (*Ursus arctos*). *Molecular Ecology* 12:2261-2265.
27. \*Adams, JR, LP Waits, B Kelly (2003) Using faecal DNA sampling and GIS to monitor hybridization between red wolves (*Canis rufus*) and coyotes (*Canis latrans*). *Molecular Ecology* 12:2175-2186.
26. \*Miller CR, LP Waits (2003) The History of Effective Population Size and Genetic Diversity in the Yellowstone Grizzly (*Ursus arctos*): Implications for Conservation. *Proceedings of the National Academy of Science USA* 100:4334-4339.
25. Adams, J, J Leonard, LP Waits (2003) Genetic evidence for introgression of domestic dog mitochondrial DNA into the wild coyote population. *Molecular Ecology* 12:541-546.
24. \*Roon D, LP Waits, KC Kendall (2003) A quantitative evaluation of two methods for preserving hair samples. *Molecular Ecology Notes* 3:163-166.
23. Gunther, KM, MJ Biel, N Anderson, LP Waits (2002) Probable grizzly bear predation on American black bear in Yellowstone National Park. *Ursus* 13:372-374.
22. \*Murphy M, LP Waits, KC Kendall, S Wasser, J Higbee, R Bogden (2002) An evaluation of long-term preservation methods for brown bear (*Ursus arctos*) faecal DNA samples. *Conservation Genetics* 3:435-440.
21. Hofreiter, M, C Capelli, M Krings, LP Waits et al (2002) Ancient DNA analyses reveal high mitochondrial DNA sequence diversity and parallel morphological evolution of late Pleistocene cave bears. *Molecular Biology and Evolution* 19:1244-1250.
20. \*Miller, C, P Joyce, LP Waits (2002) A maximum likelihood based model for detecting microsatellite genotyping errors. *Genetics* 160:357-366.
19. \*Miller, J, C Miller\*, M Scott, LP Waits (2002) Endangered Species Act: Salvation or starvation, *Bioscience* 52:163-168.
18. \*Goossens, B, L Chikhi, P Taberlet, LP Waits, D Allainé (2001) Microsatellite analysis of genetic variation among and within Alpine marmot populations in the French Alps. *Molecular Ecology* 10:41-52.
17. Waits, LP, G Luikart, P Taberlet (2001) Estimating the probability of identity among genotypes: Cautions and guidelines. *Molecular Ecology* 10:249-256.

16. \*Murphy, M, LP Waits, KC Kendall (2000) Quantitative evaluation of drying methods for brown bear fecal samples. *Wildlife Society Bulletin* 28:951-957.
15. Waits, LP, P Taberlet, J Swenson, A Sandegren, R Franzen (2000) Genetic diversity and gene flow in the Scandinavian brown bear. *Molecular Ecology* 9:421-431.
14. Waits, LP (1999) Molecular genetic applications for bear research. *Ursus* 11:253-260.
13. Waits, LP, J Sullivan, SJ O'Brien, RH Ward (1999) Rapid radiation events in the family Ursidae indicated by likelihood phylogenetic estimation from multiple gene fragments. *Molecular Phylogenetics and Evolution* 13:82-92.
12. Taberlet, P, LP Waits, G Luikart (1999) Non-invasive genetic sampling: look before you leap. *Trends in Ecology and Evolution* 14:323-327.
11. \*Goossens, B, LP Waits, P Taberlet (1998) Hair samples as a source of DNA: reliability of dinucleotide microsatellite genotyping. *Molecular Ecology* 7:1231-1241.
10. \*Goossens, B, L Graziani, LP Waits, E Farand, S Magnolon, J Coulon, M-C Bel, D Allainé, (1998) Extra-pair paternity in the monogamous alpine marmot revealed by nuclear DNA microsatellite analysis. *Behavioural Ecology and Sociobiology* 43:281-288.
9. Paetkau, D, LP Waits, P Clarkson, L Craighead, E Vyse, R Ward, C Strobeck (1998) Dramatic variation in genetic diversity across the range of North American brown bears. *Conservation Biology* 12:418-429.
8. Waits, L, S Talbot, RH Ward, G Shields (1998) Phylogeography of the North American brown bear and implications for conservation. *Conservation Biology* 12:408-417.
7. Waits, L, D Paetkau, C Strobeck, RH Ward (1998). A comparison of mitochondrial DNA and microsatellite DNA variability in brown bear populations from Alaska, Canada, and the lower 48 states. *Ursus* 10:307-314.
6. Taberlet, P, LP Waits (1998) Non-invasive genetic sampling (letter). *Trends in Ecology and Evolution* 13:26-27.
5. Paetkau, D, LP Waits, P Clarkson, L Craighead, C Strobeck (1997) An empirical evaluation of genetic distance statistics for use with microsatellite loci. *Genetics* 147:1943-1957.
4. Taberlet, P, JJ Camarra, S Griffin, E Uhres, O Hanotte, LP Waits, C Dubois-Paganon, T Burke, J Bouvet (1997) Non-invasive genetic tracking of the endangered Pyrenean brown bear population. *Molecular Ecology* 6:869-876
3. Taberlet, P, S Griffin, B Goossens, S Questiau, V Manceau, N Escaravage, LP Waits, J Bouvet (1996) Reliable genotyping of samples with very low DNA quantities using PCR. *Nucleic Acids Research* 24:3189-3194.
2. Dunkle, S, T Reust, D Nowack, L Waits, M Paulik, DM Morre, DJ Morre (1991) Temperature- and acceptor-specificity of cell-free vesicular transfer from transitional endoplasmic reticulum to the cis Golgi apparatus. *Biochemistry Journal* 288: 969-976.

1. Waits, L, S Dunkle, FE Wilkinson, P Moreau, K Safranski, T Reust, DM Morre, DJ Morre (1990). Cell-free transfer of sterols from dictyosome-like structures to plasma membrane vesicles of guinea pig testes. *Protoplasma* 154:815-824.

## Peer-Reviewed Other Publications:

### Books

N Balkenhol, S Cushman, A Storfer, LP Waits (2015) *Landscape genetics: Concepts, methods, applications*, Blackwell.

### Book Chapters

Waits, Lisette P., Murphy, Melanie A. and Storfer, Andrew (2024) Genetics, Landscape. In: Scheiner Samuel M. (eds.) *Encyclopedia of Biodiversity* 3rd edition, vol. 7, pp. 503–523. Oxford: Elsevier.

Waits LP, Cajas-Cano LN, Nicholson KL (2022) Who are we now? Shaping the future faces of the wildlife profession in Chambers, CL. and KL Nicholson. *Women in Wildlife Science: Building a Diverse Future*. John Hopkins Univ Press.

Andrews KR, M De Barba, MA Russello, LP Waits (2018) Advances in high-throughput DNA sequencing and SNP genotyping for non-invasive, archival, and environmental samples. In: PA Hohenlohe, OP Rajora (ed.) *Population Genomics: Wildlife*, Springer Nature 1-37.

Spear SF, JM Parker, CR Peterson, CL Jenkins, LP Waits. 2017. Modeling the Effect of Roads on Habitat Area and Connectivity of Midget Faded Rattlesnakes (*Crotalus oreganus concolor*) across Southwest Wyoming. Pp. 22–33 in Dreslik, M. J., W. K. Hayes, S. J. Beaupre, and S. P. Mackessy (eds.), *The Biology of Rattlesnakes II*. ECO Herpetological Publishing and Distribution, Rodeo, New Mexico.

Cleary, KC, A Sanfioranzo, LP Waits (2015) Genetics as a tool for biodiversity conservation: examples from Central America in *Central American Biodiversity - Conservation, Ecology, and a Sustainable Future*, F. Huettmann, Ed, Springer

Francois, O, LP Waits (2015) Assignment & clustering methods in landscape genetics in *Landscape genetics: Concepts, methods, applications*, N Balkenhol, S Cushman, A Storfer, LP Waits, eds, Blackwell.

Waits, LP, CW Epps (2015) Population genetics and wildlife habitat. In *Habitats in Peril: concepts, challenges, and solutions*, Michael L. Morrison, Editor, John Hopkins University Press

Waits, LP, S Spear, S Cushman (2015) Applications of landscape genetics in terrestrial wildlife research in *Landscape genetics: Concepts, methods, applications*, N Balkenhol, S Cushman, A Storfer, LP Waits, eds, Blackwell.

Waits, LP, A Storfer (2015) Basics of population genetics in *Landscape genetics: Concepts, methods, applications*, N Balkenhol, S Cushman, A Storfer, LP Waits, eds, Blackwell.

Waits, LP (2010) Box 4: Sex identification and population size of grizzly bears by using noninvasive genetic sampling in DeWoody et al, eds. *Molecular approaches in natural resource conservation*. Cambridge University Press, New York.

Johnson, WE, E Eizirik, LP Waits, SJ OBrien (2007). Molecular ecology and carnivore conservation: the application of molecular techniques for inferring identity, kinship, and social structure in the Neotropics. In: *Neotropical Carnivore Conservation*.

Waits, LP (2007) Microsatellite DNA genotyping identifies killer bear and cubs Example box in Eds. F Allendorf and G Luikart, *Conservation and Genetics of Populations*. Blackwell, Mass.

Miller, C and LP Waits, (2007, 2012) Estimating effective population size in Yellowstone Grizzly bears in Example Box in ed. F Allendorf and G Luikart *Conservation and Genetics of Populations*. Blackwell, Mass.

- Allendorf, F, Miller, C and Waits, L (2005) Genetically effective sizes of grizzly bear populations in Meffe and Carroll. Principles of Conservation Biology, Sinauer, Mass.
- Waits, LP (2004) Using non-invasive genetic sampling to detect and count rare wildlife species in B. Thompson (Ed) Sampling Rare or Elusive Species, Island Press.
- Waits, LP (2004) Taxonomic Placement of the Giant Panda Based on Molecular Data in DH Lindberg (ed) Giant Panda Conservation, University of California Press.
- Haufler, J, R Baydack, H Campa, B Kernohan, LJ O'Neil, LP Waits, C Miller (2002) Performance measures for Ecosystem Management. Wildlife Society Technical Report.
- Waits, L, D Paetkau, C Strobeck (1999) The genetics of the bears of the world. In: Bears: Status Survey and Conservation Action Plan (C. Servheen, ed) IUCN. Gland, Switzerland.

### Other Publications

- Pilliod, DS, CS Goldberg, MB Laramie, LP Waits. 2013. Application of environmental DNA for inventory and monitoring of aquatic species: U.S. Geological Survey Fact Sheet 2012-3146.
- Wulsch, C, M. Kelly, L.P. Waits 2011. Noninvasive Monitoring of Elusive Jaguars (*Panthera onca*) and other Forest Felids in Belize, Central America: a powerful survey approach for the tropics. Wild Field Monitor
- Mumma, M and LP Waits. 2011. Using Genetic Techniques to Inform Wildlife Management Decisions in Newfoundland, Canada. Safari Club International Newsletter
- Waits, LP, D Roon, M Murphy. (1999) Non-invasive genetic sampling of bear populations. International Bear Association Newsletter 8:23-25
- Waits, LP, E Meijarrrd, (1997) A report on the bear ecology session of the 11th International Conference of Bear Research and Management. International Bear Association Newsletter
- Wooding, S, LP Waits. (1994) Mitochondrial DNA sequence analysis as a tool in bear biology. International Bear Association Newsletter 3:2-3.