Literature

*Aaberg, S. A., Crofutt, C., Green, J., Finley, J., Eckerle, W., & Taddie, S. (2007). Archaeological and Geoarchaeological Investigations and Data Recovery at 24ME631, 24ME633 and 24ME747 as Part of the Dry Range Land Exchange, Meagher County, Montana. Aaberg Cultural Resources Consulting. Geoarchaeological Sections Prepared By: Western GeoArch Research. *Document contains confidential information, resides in Heritage Program files (copies not available). Not for release under FOIA.
*Deavers, Sherri. (2015). Ethnographic Overview of Selected Portions of the Lewis and Clark National Forest and Adjacent Bureau of Land Management Lands. Volume 1 Narrative. *Document contains confidential information, resides in Heritage Program files (copies not available). Not for release under FOIA.

Abele, S. C., Saab, V. A., & Garton, E. O. (2004). *Lewis's woodpecker (Melanerpes lewis): A technical conservation assessment [online]*.

Abella, S. R., & Fornwalt, P. J. (2014). Ten years of vegetation assembly after a North American mega fire. *Global Change Biology, 21*, 789-802.

Agee, J. K. (1998). The landscape ecology of western forest fire regimes. *Northwest Science, 72*, 24-34.

Agee, J. K., Bahro, B., Finney, M. A., Omi, P. N., Sapsis, D. B., Skinner, C. N., . . . Phillip Weatherspoon, C. (2000). The use of shaded fuelbreaks in landscape fire management. *Forest Ecology and Management, 127*(1–3), 55-66. doi:http://dx.doi.org/10.1016/S0378-1127(99)00116-4

Agee, J. K., & Skinner, C. N. (2005). Basic principles of forest fuel reduction treatments. *Forest Ecology and Management, 211*(1-2), 83-96. doi:http://dx.doi.org/10.1016/j.foreco.2005.01.034

Ager, A. A., Valliant, N. M., & Finney, M. A. (2010). A comparison of landscape fuel treatment strategies to mitigate wildland fire risk in the urban interface and preserve old forest structure. *Forest Ecology and Management, 259*(8), 1556-1570. doi:http://dx.doi.org/10.1016/j.foreco.2010.01.032

Al-Chokhachy, R. (2010). *Preliminary Fine Sediment Analyses for PIBO Sites in MT*.

Allen, C. D., & Breshears, D. D. (1998). Drought-induced shift of a forest–woodland ecotone: Rapid landscape response to climate variation. *Proc Natl Acad Sci U S A, 95*, 14839–14842.

Allen, C. D., Breshears, D. D., & McDowell, N. G. (2015). On underestimation of global vulnerability to tree mortality and forest die-off from hotter drought in the Anthropocene. *Ecosphere, 6*(8).

Allen, C. D., Macalady, A. K., Chenchouni, H., Bachelet, D., McDowell, N., Vennetier, M., . . . Cobb, N. (2010). A global overview of drought and heat-induced tree mortality reveals emerging climate change risks for forests. *Forest Ecology and Management, 259*(4), 660-684. doi:10.1016/j.foreco.2009.09.001

Allendorf, F. W., Leary, R. F., Spruell, P., & K., W. J. (2001). The problems with hybrids: setting conservation guidelines. *Trends in Ecology and Evolution, 16*(11), 613-622. doi:http://dx.doi.org/10.1016/S0169-5347(01)02290-X

Amman, G. D., & A., L. J. (1998). Silvercultual control of mountain pine beetles: prescriptions and the influence of microclimate. *American Entomologist*, 166-177.

Anderson, H. E. (1982). *Aids to determining fuel models for estimating fire behavior*. (Gen. Tech. Rpt. INT-122). Ogden, UT: U.S. Department of Agriculture,, Forest Service, Intermountain Forest and Range Experimental Station

Andrus, R. A., Harvey, B. J., Rodman, K. C., Hart, S. J., & Veblen, T. T. (2018). Moisture availability limits subalpine tree establishment. *Ecology, 99*(3), 8.

Archambault, D. J. (2007). Efficacy of herbicides under elevated temperature and CO2. In P. C. Newton, R. A. Carran, G. R. Edwards, & P. A. Nikluas (Eds.), *Agroecosystems in a Changing Climate* (pp. 262-279). Boston, MO: CRC Press.

Archer, E., & Ojala, J. V. (2016). *Stream habitat condition for sites in the Helena National Forest*.

Archer, E., & Ojala, J. V. (2017). *Stream habitat condition for sites in the Helena National Forest by Missouri & Columbia River Basins*. Logan, UT: U.S. Department of Agriculture, Forest Service, InFish Biological Opinion (PIBO) Monitoring Program

Arno, S. F. (2000). *Chapter 5: Fire in western forest ecosystems*. (Gen. Tech. Rpt. RMRS-GTR-42 vol. 2). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Arno, S. F., & Hoff, R. J. (1989). *Silvics of whitebark pine (Pinus albicaulis)* (General Technical Report INT-253).

Arno, S. F., Reinhardt, E. D., & Scott, J. H. (1993). *Forest structure and landscape patterns in the subalpine lodgepole pine type: A procedure for quantifying past and present conditions* (General Technical Report INT-294).

Arno, S. F., Scott, J. H., & Hartwell, M. G. (1995). *Age-class structure of old growth ponderosa pine/Douglas-fir stands and its relationship to fire history* (INT-RP-481).

Axelson, J. N., Alfaro, R. I., & Hawkes, B. C. (2009). Influence of fire and mountain pine beetle on the dynamics of lodgepole pine stands in British Columbia, Canada. *Forest Ecology and Management, 257*(9), 1874-1882. doi:http://dx.doi.org/10.1016/j.foreco.2009.01.047

Baker, W. L. (2015). Are high-severity fires burning at much higher rates recently than historically in dry-forest landscapes of the western USA? *PLoS One, 10*(9), 1-26. doi:http://dx.doi.org/10.1371/journal.pone.0136147

Baker, W. L., & Ehle, D. S. (2003). *Uncertainty in fire history and restoration of ponderosa pine forests in the western United States*.

Baker, W. L., Veblen, T. T., & Sherriff, R. L. (2007). Fire, fuels and restoration of ponderosa pine-Douglas fir forests in the Rocky Mountains, USA. *Journal of Biogeography, 34*(2), 251-269. doi:http://dx.doi.org/10.1111/j.1365-2699.2006.01592.x

Ballantine, D. J., Walling, D. E., Collins, A. L., & Leeks, G. J. L. (2008). The phosphorus content of fluvial suspended sediment in three lowland groundwater-dominated catchments. *Journal of Hydrology, 357*(1-2), 140-151. doi:http://dx.doi.org/10.1016/j.jhydrol.2008.05.011

Banci, V. (1994). Chapter 5: Wolverine. In L. F. Ruggiero, K. B. Aubry, S. W. Buskirk, L. J. Lyon, & W. J. Zielinksi (Eds.), *The scientific basis for conserving forest carnivores: American marten, fisher, lynx, and wolverine* (U.S. Department of Agriculture Forest Service General Technical Report RM-254 ed., pp. 99-127). Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station.

Barber, J., Bush, R., & Berglund, D. (2011). *The Region 1 existing vegetation classification system and its relationship to Region 1 inventory data and map products* (Numbered Report 11-10).

Barrett, S. W. (1993). *Fire history of Tenderfoot Creek experimental forest, Lewis and Clark National Forest: Final report*.

Barrett, S. W. (1997). *Historical fire regimes on the Beaverhead-Deerlodge National Forest, Montana* (Contract No. 43-0356-6-0107).

Barrett, S. W., Arno, S. F., & Menakis, J. P. (1997). *Fire episodes in the inland northwest (1540-1940) based on fire history data* (General Technical Report-INT-GTR-370).

Behnke, R. J. (1992). *Native trout of western North America* (Vol. 6). Bethesda, MD: American Fisheries Society.

Beier, P., & Brost, B. (2010). Use of land facets to plan for climate change: conserving the arenas, not the actors. *Conserv Biol, 24*(3), 701-710. doi:10.1111/j.1523-1739.2009.01422.x

Belant, J. L., Kielland, K., Follmann, E. H., & Adams, L. G. (2006). Interspecific resource partitioning in sympatric ursids. *Ecological Applications, 16*(6), 2333-2343. doi:10.1890/1051-0761(2006)016[2333:Irpisu]2.0.Co;2

Belsky, A. J., & Gelbard, J. L. (2000). *Livestock grazing and weed invasions in the arid West*.

Belsky, A. J., Matzke, A., & Uselman, S. (1999). Survey of livestock influences on stream and riparian ecosystems in the western United States. *Journal of Soil and Water Conservation, 54*, 419-431.

Benda, L., & Dunne, T. (1997). Stochastic forcing of sediment supply to channel networks from landsliding and debris flow. *Water Resources Research, 33*(12), 2849-2863. doi:http://dx.doi.org/10.1029/97WR02388

Bentz, B. J., Regniere, J., Fettig, C. J., Hansen, E. M., Hayes, J. L., Hicke, J. A., . . . Seybold, S. J. (2010). Climate change and bark beetles of the western United States and Canada: Direct and indirect effects. *BioScience, 60*(8), 602-613. doi:http://dx.doi.org/10.1525/bio.2010.60.8.6

Beschta, R. L., Frissell, C. A., Gresswell, R., Hauer, R., Karr, J. R., Minshall, G. W., . . . Rhodes, J. J. (1995). *Wildfire and salvage logging: Recommendations for ecologically sound post-fire salvage management and other post-fire treatments on federal lands in the west*.

Beschta, R. L., Rhodes, J. J., Kauffman, J. B., Gresswell, R. E., Minshall, G. W., Karr, J. R., . . . Frissell, C. A. (2004). Postfire management on forested public lands of the western United States. *Conservation Biology, 18*(4), 957-967. doi:http://dx.doi.org/10.1111/j.1523-1739.2004.00495.x

Besser, T. E., Cassirer, E. F., Potter, K. A., & Foreyt, W. J. (2017). Exposure of bighorn sheep to domestic goats colonized with Mycoplasma ovipneumoniae induces sub-lethal pneumonia. *PLoS One, 12*(6), 13.

Besser, T. E., Highland, M. A., Baker, K., Cassirer, E. F., Anderson, N. J., Ramsey, J. M., . . . Jenks, J. A. (2012). Causes of pneumonia epizootics among bighorn sheep, Western United States, 2008-2010. *Emerging Infectious Diseases, 18*(3), 406-414. doi:http://dx.doi.org/10.3201/eid1803.111554

Boisvenue, C., & Running, S. W. (2010). Simulations show decreasing carbon stocks and potential for carbon emissions in Rocky Mountain forests over the next century. *Ecological Applications, 20*(5), 1302-1319. doi:http://dx.doi.org/10.1890/09-0504.1

Bollenbacher, B. (2010). *Pattern of vegetation matters on the KIPZ*.

Bollenbacher, B., Bush, R., Hahn, B., & Lundberg, R. (2008). *Estimates of snag densities for eastside forests in the northern region* (08-07 v2.0).

Boulanger, J., & Stenhouse, G. B. (2014). The impact of roads on the demography of grizzly bears in Alberta. *PLoS One, 9*(12), 22. doi:http://dx.doi.org/10.1371/journal.pone.0115535

Bowman, J., Ray, J. C., Magoun, A. J., Johnson, D. S., & Dawson, F. N. (2010). Roads, logging, and the large-mammal community of an eastern Canadian boreal forest. *Canadian Journal of Zoology*.

Bradley, C. M., Hanson, C. T., & DellaSala, D. A. (2016). Does increased forest protection correspond to higher fire severity in frequent-fire forests of the western United States? *Ecosphere, 7*(10).

Breshears, D. D., Knapp, A. K., Law, D. J., Smith, M. D., Twidwell, D., & Wonkka, C. L. (2016). Rangeland responses to predicted increases in drought extremity. *Rangelands, 38*(4), 191-196. doi:10.1016/j.rala.2016.06.009

Briggs, J. S., Hawbaker, T. J., & Vandendriesche, D. (2015). Resilience of Ponderosa and Lodgepole Pine Forests to Mountain Pine Beetle Disturbance and Limited Regeneration. *Forest Science, 61*(4), 689-702. doi:10.5849/forsci.14-192

Brown, J. H., Stevens, G. C., & Kaufman, D. M. (1996). The geographic range: Size, shape, boundaries, and internal structure. *Annual Review of Ecology and Systematics, 27*, 597-623. doi:10.1146/annurev.ecolsys.27.1.597

Brown, J. K., Reinhardt, E. D., & Kramer, K. A. (2003). *Coarse woody debris: Managing benefits and fire hazard in the recovering forest*. (Gen. Tech. Rpt. RMRS-GTR-105). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Burcham, M., Edge, W. D., & Marcum, C. L. (1999). Elk use of private land refuges. *Wildlife Habitat and Land Management, 27*(3), 833-839.

Burden, R. F., & Randerson, P. F. (1972). Quantitative studies of the effects of human trampling on vegetation as an aid to the management of semi-natural areas. *Journal of Applied Ecology, 9*(2), 439-457. doi:http://dx.doi.org/10.2307/2402445

Bush, R. (2015). *Meadow Smith old growth monitoring report, 2015*.

Bush, R., & Lundberg, R. (2008). *Wildlife habitat estimate updates for the Region 1 conservation assessment* (08-04 v1.0).

Bush, R., & Reyes, B. (2020). *Estimates of Snag and Live-Tree Densities for Eastern Montana Forests in the Northern Region based on FIA Hybrid 2011 Analysis Dataset.* (Report 20-01 v1.0). Missoula, MT: U.S. Department of Agriculture, Forest Service, Region 1

Cambi, M., Certini, G., Neri, F., & Marchi, E. (2015). The impact of heavy traffic on forest soils: A review. *Forest Ecology and Management, 338*, 124-138. doi:http://dx.doi.org/10.1016/j.foreco.2014.11.022

Carr, G. W. (1993). Exotic flora of Victoria and its imact on indigenous biota. In D. B. Foreman & N. G. Walsh (Eds.), *Flora of Victoria. Volume 1 Introduction* (pp. 256-297). Melbourne, Australia: Inkata Press.

Casey, D. (2000). *Partners in flight bird conservation plan Montana*.

Cassirer, E. F., Manlove, K. R., Plowright, R. K., & Besser, T. E. (2017). Evidence for strain-specific immunity to pneumonia in bighorn sheep. *The Journal of Wildlife Management, 81*(1), 133-143. doi:10.1002/jwmg.21172

Charney, N. D., Babst, F., Poulter, B., Record, S., Trouet, V. M., Frank, D., . . . Evans, M. E. K. (2016). Observed forest sensitivity to climate implies large changes in 21st century North American forest growth. *Ecology Letters, 19*, 1119-1128. doi:http://dx.doi.org/10.1111/ele.12650

Chen, I.-C., Hill, J. K., Ohlemuller, R., Roy, D. B., & Thomas, C. D. (2011). Rapid range shifts of species associated with high levels of climate warming. *Science, 333*, 1024-1026.

Christensen, A. G., Lyon, L. J., & Unsworth, J. W. (1993). *Elk management in the northern region: Considerations in forest plan updates or revisions* (Gen. Tech. Rpt. INT-303).

Cilimburg, A. (2006). *Northern region landbird monitoring program 2005 flammulated owl surveys final report* (FS - 13669).

Clayton, J. L. (1990). *Soil disturbance resulting from skidding logs on granitic soils in central Idaho* (Research Paper INT-436).

Climburg, A. (2006). *2005 flammulated owl surveys: Final report*.

Cohen, W. B., Yang, Z., Stehman, S. V., Schroeder, T. A., Bell, D. M., Masek, J. G., . . . Meigs, G. W. (2016). Forest disturbance across the conterminous United States from 1985–2012: The emerging dominance of forest decline. *Forest Ecology and Management, 360*, 242-252.

Collins, B. M., Miller, J. D., Thode, A. E., Kelly, M., Wagtendonk, J. W., & Stephens, S. L. (2008). Interactions among wildland fires in a long-established Sierra Nevada natural fire area. *Ecosystems, 12*(1), 114-128. doi:http://dx.doi.org/10.1007/s10021-008-9211-7

Cook, C., & Dresser, A. (2007). Erosion and channel adjustments following forest road decommissioning, Six Rivers National Forest. In M. Furniss, C. Clifton, & K. Ronnenberg (Eds.), *Advancing the fundamental sciences: Proceedings of the Forest Service national earth sciences conference, San Diego, CA, 18-22 October 2004, PNWGTR-689*. Portland, Oregon: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

Cook, J. G. (2002). Nutrition and food. In D. E. Toweill & J. W. Thomas (Eds.), *North American elk: Ecology and management* (pp. 259-349). Washington, DC: Smithsonian Institution Scholarly Press.

Cook, J. G., & Irwin, L. L. (1992). Climate-vegetation relationships between the Great Plains and Great Basin. *The American Midland Naturalist, 127*, 316-326.

Cook, J. G., Irwin, L. L., Bryant, L. D., Riggs, R. A., & Thomas, J. W. (2005). Thermal cover needs of large ungulates: A review of hypothesis tests. In M. J. Wisdom (Ed.), *The Starkey project: A synthesis of long-term studies of elk and mule deer* (pp. 185-196): Alliance Communications Group.

Cook, J. G., Quinlan, L. J., Irwin, L. L., Bryant, L. D., Riggs, R. A., & Thomas, J. W. (1996). Nutrition-growth relations of elk calves during late summer and fall. *Journal of Wildlife Management, 60*(3), 528-541.

Copeland, J. P., Mckelvey, K. S., Aubry, K. B., Landra, A., Persson, J., Inman, R. M., . . . May, R. (2010). The bioclimatic envelope of the wolverine (Gulo gulo): do climatic constraints limit its

geographic distribution? *Canadian Journal of Zoology, 88*(3), 233-246. doi:http://dx.doi.org/10.1139/Z09-136

Costello, C. M., Mace, R. D., & Roberts, L. (2016). *Grizzly bear demographics in the northern Continental Divide ecosystem, Montana: Research results (2004–2014) and suggested techniques for management of mortality*.

Costello, C. M., & Roberts, L. L. (2019). *Northern Continental Divide Ecosystem Grizzly Bear Monitoring Team Annual Report, 2018*. Kalispell, MT: Montana Fish, Wildlife & Parks

Craigg, T. L., Adams, P. W., & Bennett, K. A. (2015). Soil matters: Improving forest landscape planning and management for diverse objectives with soils information and expertise. *Journal of Forestry, 113*(3), 343-353. doi:http://dx.doi.org/10.5849/jof.14-083

Dale, V. H., Joyce, L. A., Steve, M., Neilson, R. P., Ayres, M. P., Flannigan, M. D., . . . Wotton, B. M. (2001). Climate change and forest disturbances. *BioScience, 51*(9), 723-734. doi:http://dx.doi.org/10.1641/0006-3568(2001)051[0723:Ccafd]2.0.Co;2

Davis, K. T., Dobrowski, S. Z., Higuera, P. E., Holden, Z. A., Veblen, T. T., Rother, M. T., . . . Maneta, M. P. (2019). Wildfires and climate change push low-elevation forests across a critical climate threshold for tree regeneration. *Proceedings of the National Academy of Sciences, 116*(13), 6193-6198. doi:10.1073/pnas.1815107116

DellaSala, D. A., Anthony, R. G., Bond, M. L., Fernandez, E. S., Frissell, C. A., Hanson, C. T., & Spivak, R. (2013). Alternative views of a restoration framework for federal forests in the Pacific Northwest. *Journal of Forestry, 111*(6), 420-429. doi:http://dx.doi.org/10.5849/jof.13-040

DellaSala, D. A., Nagle, G., Karr, J. R., Fairbanks, R., Odion, D., Williams, J. E., . . . Ingalsbee, T. (2006). *The facts and myths of post-fire management: A case study of the Biscuit Fire, southwest Oregon [Unpublished]*.

DeVoe, J. D., Proffitt, K. M., Mitchell, M. S., Jourdeonnais, C. S., & Barker, K. J. (2018). Elk Forage and Risk Tradeoffs During the Fall Archery Season. *The Journal of Wildlife Management*. doi:10.1002/jwmg.21638

Dickard, M., Gonzalez, M., Elmore, W., Leonard, S., Smith, D. C., Smith, S., . . . Wyman, S. (2015). *Riparian area management: Proper functioning condition assessment for lotic areas* (Technical Reference 1797-15, Second Edition).

Dissmeyer, G. E. E. (2000). *Drinking water from forests and grasslands: A synthesis of the scientific literature* (General Technical Report SRS-39).

DiTomaso, J. M., Brooks, M. L., Allen, E. B., Minnich, R., Rice, P. M., & Kyser, G. B. (2006). Control of invasive weeds with prescribed burning. *Weed Technology, 20*(2), 535-548. doi:http://dx.doi.org/10.1614/WT-05-086R1.1

Dodson, E. K., & Root, H. T. (2013). Conifer regeneration following stand-replacing wildfire varies along an elevation gradient in a ponderosa pine forest, Oregon, USA. *Forest Ecology and Management, 302*, 163-170. doi:http://dx.doi.org/10.1016/j.foreco.2013.03.050

Dood, A. R., Atkinson, S. J., & Boccadori, V. J. (2006). *Grizzly bear management plan for western Montana: Final programmatic environmental impact statement 2006-2016*.

Eby, L. A., Helmy, O., Holsinger, L. M., & Young, M. K. (2014). Evidence of climate-induced range contractions in bull trout *Salvelinus confluentus* in a Rocky Mountain watershed, U.S.A. *PLoS One, 9*(6), e98812. doi:http://dx.doi.org/10.1371/journal.pone.0098812

Edge, D. W., & Marcum, C. L. (1991, 10-12 April). *Topography ameliorates the effects of roads and human disturbance on elk.* Paper presented at the Elk Vulnerability Symposium, Montana State University, Bozeman, MT.

Egan, J. M., Kegley, S., Blackford, D., & Jorgensen, C. L., (tech. eds.). (2014). *Effectiveness of direct and indirect mountain pine beetle control treatments as implemented by the USDA Forest Service*. (Report 14-03). Missoula, MT: U.S. Department of Agriculture, Forest Service, Forest Health Protection

Elliot, W. J., Hall, D. E., & Graves, S. R. (1999). Predicting sedimentation from forest roads. *Journal of Forestry, 97*(8), 23-29.

Fettig, C. J., Klepzig, K. D., Billings, R. F., Munson, A. S., Nebeker, T. E., Negron, J. F., & Nowak, J. T. (2007). The effectiveness of vegetation management practices for prevention and control of bark beetle infestations in coniferous forests of the western and southern United States. *Forest Ecology and Management, 238*(1-3), 24-53. doi:http://dx.doi.org/10.1016/j.foreco.2006.10.011

Fiedler, C. E. (2002). Natural process-based management of fire-adapted western forests. In D. M. Baumgartner, L. R. Johnson, & E. J. DePuit (Eds.), *Small diameter timber: Resource management, manufacturing, and markets--Proceedings of conference held February 25-27, 2002, in Spokane, Washington* (pp. 147-151). Pullman, WA: Washington State University Cooperative Extension.

Finney, M. A. (2003). Calculation of fire spread rates across random landscapes. *International Journal of Wildland Fire, 12*, 167-174.

Finney, M. A., McHugh, C. W., & Grenfell, I. C. (2005). Stand- and landscape-level effects of prescribed burning on two Arizona wildfires. *Canadian Journal of Forest Research, 35*(7), 1714-1722. doi:http://dx.doi.org/10.1139/x05-090

Finney, M. A., Seli, R. C., McHugh, C. W., Ager, A. A., Bahro, B., & Agee, J. K. (2007). Simulation of long-term landscape-level fuel treatment effects on large wildfires. *International Journal of Wildland Fire, 16*(6), 712-727. doi:http://dx.doi.org/10.1071/WF06064

Franklin, J. F., Mitchell, R. J., & Palik, B. J. (2007). *Natural disturbance and stand development principles for ecological forestry* (General Technical Report NRS-19).

Franklin, J. F., Spies, T. A., Van Pelt, R., Carey, A. B., Thornburgh, D. A., Berg, D. R., . . . Chen, J. (2002). Disturbances and structural development of natural forest ecosystems with silvicultural implications, using Douglas-fir forests as an example. *Forest Ecology and Management, 155*(1-3), 399-423. doi:http://dx.doi.org/10.1016/S0378-1127(01)00575-8

Fule, P. Z., Crouse, J. E., Roccaforte, J. P., & Kalies, E. L. (2012). Do thinning and/or burning treatments in western USA ponderosa or Jeffrey pine-dominated forests help restore natural fire behavior? *Forest Ecology and Management, 269*, 68-81. doi:http://dx.doi.org/10.1016/j.foreco.2011.12.025

Fule, P. Z., Swetnam, T. W., Brown, P. M., Falk, D. A., Peterson, D. L., Allen, C. D., . . . Taylor, A. (2013). Unsupported inferences of high-severity fire in historical dry forests of the western United States: response to Williams and Baker. *Global Ecology and Biogeography*, 1-6. doi:https://doi.org/10.1111/geb.12136

Glasser, S., Gauthier-Warinner, J., Gurrieri, J., Keely, J., Tucci, P., Summers, P., . . . McCormack, K. (2007). *Technical guide to managing ground water resources*. (FS-881). U.S. Department of Agriculture, Forest Service, Minerals and Geology Management, Watershed, Fish, Wildlife, Air, and Rare Plants

Golladay, S. W., Martin, K. L., Vose, J. M., Wear, D. N., Covich, A. P., Hobbs, R. J., . . . Shearer, A. W. (2016). Achievable future conditions as a framework for guiding forest conservation and management. *Forest Ecology and Management, 360*, 80-96.

Graham, R. T. (2003). *Hayman fire case study*. (Gen. Tech. Rpt. RMRS-GTR-114). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Graham, R. T., Harvey, A. E., Jurgensen, M. F., Jain, T. B., Tonn, J. R., & Page-Dumroese, D. S. (1994). *Managing coarse woody debris in forests of the Rocky Mountains* (INT-RP-477).

Gratson, M. W., & Whitman, C. L. (2000). Road closures and density and success of elk hunters in Idaho. *Wildlife Society Bulletin, 28*(2), 302-310.

Green, P., Joy, J., Sirucek, D., Hann, W., Zack, A., & Naumann, B. (1992). *Old-growth forest types of the northern region* (R-1 SES 4/92).

Green, P., Joy, J., Sirucek, D., Hann, W., Zack, A., & Naumann, B. (2011). *Old-growth forest types of the Northern Region (1992, with errata through 2011)*.

Gresswell, R. E. (1999). Fire and aquatic ecosystems in forested biomes of North America. *Transactions of the American Fisheries Society, 128*(2), 193-221. doi:http://dx.doi.org/10.1577/1548-8659(1999)128<0193:FAAEIF>2.0.CO;2

Grove, A. J., Wambolt, C. L., & Frisina, M. R. (2005). Douglas-fir's effect on mountain big sagebrush wildlife habitats. *Wildlife Society Bulletin, 33*(1), 74-80.

Gruell, G. E. (1983). *Fire and vegetative trends in the Northern Rockies: Interpretations from 1871-1982 photographs* (General Technical Report INT-158).

Gruell, G. E., Brown, J. K., & Bushey, C. L. (1986). *Prescribed fire opportunities in grasslands invaded by Douglas-fir: State-of-the-art guidelines*. (Gen. Tech Rpt. INT-198). Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station

Gucinski, H., Furniss, M. J., Ziemer, R. R., & Brookes, M. H. (2001). *Forest roads: A synthesis of scientific information* (Gen. Tech. Rep. PNW-509).

Gude, P., Rasker, R., & Van den Noort, J. (2008). Potential for future development on fire-prone lands. *Journal of Forestry*, 198-205.

Hagle, S. K. (2006). *Armillaria root disease: Ecology and management* (Information Report 11.1).

Halofsky, J., & Peterson, D. (2016). Climate change vulnerabilities and adaptation options for forest vegetation management in the Northwestern USA. *Atmosphere, 7*(12). doi:10.3390/atmos7030046

Halofsky, J. E., & Peterson, D. L. (2018). *Climate Change and Rocky Mountain Ecosystems* (J. E. Halofsky & D. L. Peterson Eds. Vol. 63). Switzerland AG: Springer International Publishing.

Halofsky, J. E., Peterson, D. L., Dante-Wood, S. K., Hoang, L., Ho, J. J., & Joyce, L. A. (2018a). *Climate change vulnerability and adaptation in the northern Rocky Mountains: Part 1*. (Gen. Tech. Rep. RMRS-GTR-374). Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Halofsky, J. E., Peterson, D. L., Dante-Wood, S. K., Hoang, L., Ho, J. J., & Joyce, L. A. (2018b). *Climate change vulnerability and adaptation in the northern Rocky Mountains: Part 2*. (Gen. Tech. Rep. RMRS-GTR-374). Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Hann, W. J., & Bunnell, D. L. (2001). Fire and land management planning and implementation across multiple scales. *International Journal of Wildland Fire, 10*(3-4), 389-403. doi:http://dx.doi.org/10.1071/Wf01037

Hann, W. J., Shlisky, A., Havlina, D., Schon, K., Barrett, S. W., DeMeo, T. E., . . . Frame, C. K. (2008). *Interagency fire regime condition class (FRCC) guidebook*.

Hansen, E. M., Amacher, M. C., Van Miegroet, H., Long, J. N., & Ryan, M. G. (2015). Carbon Dynamics in Central US Rockies Lodgepole Pine Type after Mountain Pine Beetle Outbreaks. *Forest Science, 61*(4), 665-679. doi:10.5849/forsci.14-094

Hansen, E. M., Johnson, M. C., Bentz, B. J., Vandygriff, J. C., & Munson, A. S. (2015). Fuel Loads and Simulated Fire Behavior in "Old-Stage" Beetle-Infested Ponderosa Pine of the Colorado Plateau. *Forest Science, 61*(4), 644-664. doi:10.5849/forsci.14-081

Hanson, C. (2010). *The myth of "catastrophic" wildfire: A new ecological paradigm of forest health* (1).

Hanson, C. L., Wight, J. R., Slaughter, C. W., Pierson, F. B., & Spaeth, K. (1999). Simulation models and management of rangeland ecosystems: past, present, and future. *Rangelands, 21*(4), 32-38.

Hardy, C. C., Keane, R. E., & Stewart, C. A. (2000). Ecosystem-based management in the lodgepole pine zone. In H. Y. Smith (Ed.), *The Bitterroot Ecosystem Management Research Project: What we have learned; symposium proceedings; 1999 May 18-20; Missoula, MT. Proceedings RMRS-P-17* (pp. 31-35). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Haroldson, M. A., Ternent, M. A., Gunther, K. A., & Schwartz, C. C. (2002). Grizzly bear denning chronology and movements in the Greater Yellowstone Ecosystem. *Ursus, 13*, 29-37.

Harris, L. D. (1984). *The fragmented forest, island biogeography theory and the preservation of biotic diversity*.

Harris, R. B. (1999). *Abundance and characteristics of snags in western Montana forests*. (Gen. Tech. Rpt. RMRS-GTR-31). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Harrison, S., Damschen, E., & Going, B. M. (2009). Climate gradients, climate change, and special edaphic floras. *Northeastern Naturalist, 16*(sp5), 121-130. doi:10.1656/045.016.0510

Harsch, M. A., & Ris Lambers, J. H. (2015). Species distributions shift downward across western North America. *Global Change Biology, 21*(3), 1376. doi:http://dx.doi.org/10.1111/gcb.12697

Harvey, B. J., Donato, D. C., & Turner, M. G. (2016). High and dry: post-fire tree seedling establishment in subalpine forests decreases with post-fire drought and large stand-replacing burn patches. *Global Ecology and Biogeography, 25*, 655-669.

Haufler, J., & Mehl, C. (2015). *U.S. Forest Service conservation strategy for ecological sustainability and biodiversity conservation: Description and scientific foundation*. Seeley Lake, MT: Ecosystem Management Research Institute

Haufler, J. B., Mehl, C., A., & Yeats, S. (2016). *Blackfoot-Swan landscape restoration project*. (14-CS-11011000-037). Seeley Lake, MT: Blackfoot-Swan Landscape Restoration Project: Landscape Assessment for Terrestrial Forest Ecosystems, Executive Summary

Hegg, S. J., Murphy, K., & Bjornlie, D. (2010). Grizzly bears and snowmobile use: A summary of monitoring a grizzly den on Togwotee Pass. *Yellowstone Sciences, 18*(2), 23-28.

Heinemeyer, K., Squires, J., Hebblewhite, M., O'Keefe, J., Holbrook, J. D., & Copeland, J. (2019). Wolverines in winter: Indirect habitat loss and functional responses to backcountry recreation. *Ecosphere, 10*(2), 1-23. doi:10.1002/ecs2.2611

Heinemeyer, K. S., Squires, J. R., Hebblewhite, M., Smith, J. S., Holbrook, J. D., & Copeland, J. P. (2017). *Wolverine – winter recreation research project: Investigating the interactions between wolverines and winter recreation. Final report*. Tetonia, ID: The Wolverine Foundation

Heinimann, H. R. (1999, 3/28/99-4/1/99). *Ground-based harvesting systems for steep slopes.* Paper presented at the International Mountain Logging and 10th Pacific Northwest Skyline Symposium, Corvallis, OR.

Henderson, R. E., Sterling, B. A., & Lemke, T. O. (1993). *The Lower Clark Fork elk study: Final report 1985-1990*.

Henjum, M. G., Karr, J. R., Bottom, D. L., Perry, D. A., Bednarz, J. C., Wright, S. G., . . . Beckwitt, E. (1994). *Interim protection for late-successional forests, fisheries, and watersheds: National forests east of the Cascade Crest, Oregon and Washington* (The Wildlife Society Technical Review 94-2).

Hessburg, P. F., & Agee, J. K. (2003). An environmental narrative of inland northwest United States forests, 1800–2000. *Forest Ecology and Management, 178*, 23-59. doi:http://dx.doi.org/10.1016/S0378-1127(03)00052-5

Hessburg, P. F., Agee, J. K., & Franklin, J. F. (2005). Dry forests and wildland fires of the inland northwest USA : Contrasting the landscape ecology of the pre-settlement and modern eras. *Forest Ecology and Management, 211*, 117-139. doi:http://dx.doi.org/10.1016/j.foreco.2005.02.016

Hessburg, P. F., Reynolds, K. M., Keane, R. E., James, K. M., & Salter, R. B. (2007). Evaluating wildland fire danger and prioritizing vegetation and fuels treatments. *Forest Ecology and Management, 247*(1–3), 1-17. doi:http://dx.doi.org/10.1016/j.foreco.2007.03.068

Heyerdahl, E. K., Miller, R. F., & Parsons, R. A. (2006). History of fire and Douglas-fir establishment in a savanna and sagebrush–grassland mosaic, southwestern Montana, USA. *Forest Ecology and Management, 230*(1–3), 107-118. doi:http://dx.doi.org/10.1016/j.foreco.2006.04.024

Hillis, J. M., Thompson, M. J., Canfield, J. E., Lyon, L. J., Marcum, C. L., Dolan, P. M., & McCleerey, D. W. (1991, 10-12 April). *Defining elk security: the Hillis paradigm.* Paper presented at the Elk Vulnerability Symposium, Bozeman, MT.

Hitt, N. P., & Frissell, C. A. (2000). An evaluation of wilderness and aquatic biointegrity in western Montana. In S. F. McCool, D. N. Cole, W. T. Borrie, & J. O'Loughlin (Eds.), *Wilderness Science in a Time of Change Conference--Volume 2: Wilderness within the context of larger systems--Missoula, Montana, May 23-27, 1999* (pp. 138-142). Fort Collins, CO: USDA Forest Service, Rocky Mountain Research Station.

Hitt, N. P., Frissell, C. A., Muhlfeld, C. C., & Allendorf, F. W. (2003). Spread of hybridization between native westslope cutthroat trout, *Oncorhynchus* clarki lewisi, and nonnative rainbow trout, *Oncorhynchus* mykiss. *Canadian Journal of Fisheries and Aquatic Sciences, 60*(12), 1440-1451. doi:http://dx.doi.org/10.1139/f03-125

Hobbs, R. J., & Humphries, S. E. (1995). An integrated approach to the ecology and management of plant invasions. *Conservation Biology, 9*(4), 761-770.

Holbrook, J. D., Squires, J. R., Bollenbacher, B., Graham, R., Olson, L. E., Hanvey, G., . . . Lawrence, R. L. (2018). Spatio-temporal responses of Canada lynx (Lynx canadensis) to silvicultural treatments in the northern Rockies, U.S. *Forest Ecology and Management, 422*, 114-124. doi:10.1016/j.foreco.2018.04.018

Holbrook, J. D., Squires, J. R., Bollenbacher, B., Graham, R., Olson, L. E., Hanvey, G., . . . Savage, S. L. (2019). Management of forests and forest carnivores: Relating landscape mosaics to habitat quality of Canada lynx at their range periphery. *Forest Ecology and Management, 437*, 411-425. doi:10.1016/j.foreco.2019.01.011

Holbrook, J. D., Squires, J. R., Olson, L. E., DeCesare, N. J., & Lawrence, R. L. (2017). Understanding and predicting habitat for wildlife conservation: the case of Canada lynx at the range periphery. *Ecosphere, 8*(9), 1-25.

Holbrook, J. D., Squires, J. R., Olson, L. E., Lawrence, R. L., & Savage, S. L. (2017). Multiscale habitat relationships of snowshoe hares (Lepus americanus) in the mixed conifer landscape of the Northern Rockies, USA: Cross-scale effects of horizontal cover with implications for forest management. *Ecol Evol, 7*(1), 125-144. doi:10.1002/ece3.2651

Holden, Z. A., Swanson, A., Luce, C. H., Jolly, W. M., Maneta, M., Oyler, J. W., . . . Affleck, D. (2018). Decreasing fire season precipitation increased recent western US forest wildfire activity. *Proceedings of the National Academy of Sciences, 115*(36), E8349-E8357. doi:10.1073/pnas.1802316115

Hornocker, M. G., & Hash, H. S. (1981). Ecology of the wolverine in northwestern Montana. *Canadian Journal of Zoology, 59*(7), 1286-1301. doi:http://dx.doi.org/10.1139/z81-181

Huntington, C., Nehlsen, W., & Bowers, J. (1996). A survey of healthy native stocks of anadromous salmonids in the Pacific Northwest and California. *Fisheries, 21*(3), 6-14. doi:http://dx.doi.org/10.1577/1548-8446(1996)021<0006:ASOHNS>2.0.CO;2

Hutto, R. L., & Gallo, S. M. (2006). The effects of postfire salvage logging on cavity-nesting birds. *Condor, 108*(4), 817-831. doi:http://dx.doi.org/10.1650/0010-5422(2006)108[817:Teopsl]2.0.Co;2

Inman, R. M., Bergen, S., & Beckman, J. P. (2013). *Wolverine connectivity in greater Yellowstone: A circuitscape analysis at the metapopulation scale*.

Inman, R. M., Brock, B. L., Inman, K. H., Sartorius, S. S., Aber, B. C., Giddings, B., . . . Chapron, G. (2013). Developing priorities for metapopulation conservation at the landscape scale: Wolverines in the Western United States. *Biological Conservation, 166*, 276-286. doi:http://dx.doi.org/10.1016/j.biocon.2013.07.010

Inman, R. M., Packila, M. L., H., I. K., McCue, A. J., White, G. C., Persson, J., . . . Sartorius, S. S. (2012). Spatial ecology of wolverines at the southern periphery of distribution. *Journal of Wildlife Management, 76*(4), 778-7925. doi:http://dx.doi.org/10.1002/jwmg.289

Interagency Grizzly Bear Committee. (1986). *Interagency grizzly bear guidelines*.

Interagency Grizzly Bear Committee. (1994). *Interagency grizzly bear committee taskforce report: Grizzly bear/motorized access management*.

Interagency Grizzly Bear Committee. (1998). *Interagency grizzly bear committee taskforce report. Grizzly bear/motorized access management*.

Interagency Lynx Biology Team. (2013). *Canada lynx conservation assessment and strategy (3rd ed.)*.

Intergovernmental Panel on Climate Change. (2007). Climate change: Impacts, adaptation and vulnerability. In M. L. Parry, O. F. Canziani, & J. P. Palutikof (Eds.), *Contribution of Working*

Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (pp. 976). Cambridge, U.K.; New York: Cambridge University Press.

Interior Columbia Basin Ecosystem Management Project. (1997). *Draft environmental impact statement (draft EIS), Interior Columbia Basin Ecosystem Management Project*.

Interior Columbia Basin Ecosystem Management Project. (2014). *The Interior Columbia Basin Strategy*. ICBEMP

Isaak, D. J., Wenger, S. J., Peterson, E. E., Ver Hoef, J. M., Nagel, D. E., Luce, C. H., . . . Parkes-Payne, S. (2017). The NorWeST summer stream temperature model and scenarios for the western U.S.: A crowd-sourced database and new geospatial tools foster a user community and predict broad climate warming of rivers and streams. *Water Resources Research, 53*, 1-25. doi:10.1002/2017WR020969

Isaak, D. J., Young, M. K., Nagel, D. E., Horan, D. L., & Groce, M. C. (2015). The cold-water climate shield: delineating refugia for preserving salmonid fishes through the 21st century. *Global Change Biology, 21*(7), 2540-2553. doi:http://dx.doi.org/10.1111/gcb.12879

Jacobs, J. (2007). Invasive plant management: Options and actions. In *Invasive plant management: CIPM online textbook*. Bozeman, MT: Natural Resources Conservation Service.

Jenkins, M. J., Hebertson, E., Page, W., & Jorgensen, C. A. (2008). Bark beetles, fuels, fires and implications for forest management in the Intermountain West. *Forest Ecology and Management, 254*, 16-34. doi:http://dx.doi.org/10.1016/j.foreco.2007.09.045

Jenne, J. L., & Egan, J. M. (2019). *Mid-level summary of mountain pine beetle infestations and management throughout the Northern Region from 1909-1945*. (Report-19-05). Missoula, MT: U.S. Department of Agriculture, Forest Service, Forest Health Protection

Johnson, E. A., Miyanishi, K., & Weir, J. M. H. (1995). Old-growth, disturbance, and ecosystem management. *Canadian Journal of Botany, 73*, 918-926.

Jones, M. (2004). *Peatlands need bigger buffers to protect species*. Missoula, MT: Montana Natural Heritage Program

Karr, J. R., & Chu, E. W. (1999). *Restoring life in running waters: Better biological monitoring (Revised ed.)*. Washington, D.C.: Island Press.

Karr, J. R., Rhodes, J. J., Minshall, G. W., Hauer, F. R., Beschta, R. L., Frissell, C. A., & Perry, D. A. (2004). The effects of postfire salvage logging on aquatic ecosystems in the American West. *BioScience, 54*(11), 1029-1033.

Kashian, D. M., Turner, M. G., Romme, W. H., & Lorimer, C. G. (2005). Variability and convergence in stand structural development on a fire-dominated subalpine landscape. *Ecology, 86*(3), 643-654.

Kaye, M. W., Binkley, D., & Stohlgren, T. J. (2005). Effects of conifers and elk browsing on quaking aspen forests in the central Rocky Mountains, USA. *Ecological Applications, 15*(4), 1284-1295.

Keane, R. E., Tomback, D. F., Aubry, C. A., Bower, A. D., Campbell, E. M., Cripps, C. L., . . . Smith, C. M. (2012). *A range-wide restoration strategy for whitebark pine (Pinus albicaulis)*. (Gen. Tech. Rep. RMRS-GTR-279). Fort Collins, CO: U.S. Department of Agriculture,, Forest Service, Rocky Mountain Research Station

Kegley, S., & Sturdevant, N. J. (2006). *Spruce budworm defoliation and mortality on Flesher Pass-June 2006*. (Trip Report TR-06-10). Missoula, MT

Kendall, K. C., Jeffrey, B. S., Boulanger, J., Macleod, A. C., Paetkau, D., & White, G. C. (2009). Demography and genetic structure of a recovering grizzly bear population. *Journal of Wildlife Management, 73*(1), 3-17. doi:http://dx.doi.org/10.2193/2008-330

Kerns, B. K., Alexander, S. J., & Bailey, J. D. (2004). Huckleberry abundance, stand conditions, and use in western Oregon: Evaluating the role of forest management. *Economic Botany, 58*, 668-678. doi:http://dx.doi.org/10.1663/0013-0001(2004)058[0668:HASCAU]2.0.CO;2

Kershner, J. L., Bischoff, C. M., & Horan, D. L. (1997). Population, habitat, and genetic characteristics of Colorado River cutthroat trout in wilderness and nonwilderness stream sections in the Uinta Mountains of Utah and Wyoming. *North American Journal of Fisheries Management, 17*(4), 1134-1143. doi:http://dx.doi.org/10.1577/1548-8675(1997)017<1134:PHAGCO>2.3.CO;2

Kessler, J., Bradley, C., Rhodes, J., & Wood, J. (2001). *Imperiled western trout and the importance of roadless areas: A report by the Western Native Trout Campaign*.

Kitchen, K. A. (2010). *The influence of douglas-fir and Rocky Mountain juniper on Wyoming and mountain big sagebrush cover in southwest Montana.* (Master of Science Master's thesis). Montana State University, Bozeman, MO.

Kitzberger, T., Brown, P. M., Heyerdahl, E. K., Swetnam, T. W., & Veblen, T. T. (2007). Contingent Pacific-Atlantic Ocean influence on multicentury wildfire synchrony over western North America. *Proc Natl Acad Sci U S A, 104*(2), 543-548. doi:10.1073/pnas.0606078104

Klock, G. O. (1975). lmpact of five postfire salvage logging systems on soils and vegetation. *Journal of Soil and Water Conservation, March-April*, 78-91.

Kolb, T. E., Holmberg, K. M., Wager, M. R., & Stone, J. E. (1998). Regulation of ponderosa pine foliar physiology and insect resistance mechanisms by basal area treatments. *Tree Physiology, 18*, 375-381.

Kolbe, J. A., Squires, J. R., Pletscher, D. H., & Ruggiero, L. F. (2007). The effect of snowmobile trails on coyote movements within lynx home ranges. *Journal of Wildlife Management, 71*(5), 1409-1418. doi:http://dx.doi.org/10.2193/2005-682

Kosterman, M. K. (2014). *Correlates of Canada lynx reproductive success in northwestern Montana.* (Master's thesis). University of Montana, Missoula, Montana. Retrieved from http://scholarworks.umt.edu/cgi/viewcontent.cgi?article=5406&context=etd

Kosterman, M. K., Squires, J. R., Holbrook, J. D., Pletscher, D. H., & Hebblewhite, M. (2018). Forest structure provides the income for reproductive success in a southern population of Canada lynx. *Ecological Applications*. doi:10.1002/eap.1707

Kueppers, L. M., Conlisk, E., Castanha, C., Moyes, A. B., Germino, M. J., De Valpine, P., . . . Mitton, J. B. (2016). Warming and provenance limit tree recruitment across and beyond the elevation range of subalpine forest. *Global Change Biology*. doi:http://dx.doi.org/10.1111/gcb.13561

Kuglin, T. (2020, February 11, 2020). FWP proposes single bighorn sheep tag for Elkhorns following die-off. *Helena Independent Record*.

Kulakowski, D., Kaye, M. W., & Kashian, D. M. (2013). Long-term aspen cover change in the western US. *Forest Ecology and Management*.

Lackey, R. T. (2001). Values, policy, and ecosystem health. *BioScience, 51*(6), 437-443. doi:http://dx.doi.org/10.1641/0006-3568(2001)051[0437:Vpaeh]2.0.Co;2

Lake, P. S. (2000). Disturbance, patchiness, and diversity in streams. *Journal of the North American Benthological Society, 19*(4), 573-592. doi:http://dx.doi.org/10.2307/1468118

Lee, D. C., Sedell, J. R., Rieman, B. E., Thurow, R. F., Williams, J. E., Burns, D., . . . Van Eimeren, P. (1997). *Chapter 4: Broadscale assessment of aquatic species and habitats* (General Technical Report PNW-GTR-405).

Leege, T. A. (1984). *Evaluating and managing summer elk habitat in northern Idaho*.

Lehmkuhl, J. F., Kennedy, M., Ford, D. E., Singleton, P. H., Gaines, W. L., & Lind, R. L. (2007). Seeing the forest for the fuel: Integrating ecological values and fuels management. *Forest Ecology and Management, 246*(1), 73-80. doi:http://dx.doi.org/10.1016/j.foreco.2007.03.071

Leptich, D. J., & Zager, P. (1991). *Road access management effects on elk mortality and population dynamics.* Paper presented at the Elk Vulnerability Symposium, MSU, Bozeman, MT.

Lewis and Clark County. (2011). *Lewis and Clark County Outdoor Air Quality Regulations*.

Lindh, B. C., & Muir, P. S. (2004). Understory vegetation in young Douglas-fir forests: does thinning help restore old-growth composition? *Forest Ecology and Management, 192*(2-3), 258-296. doi:http://dx.doi.org/10.1016/j.foreco.2004.01.018

Linkhart, B. D., & McCallum, D. A. (2013). Flammulated owl (*Psiloscops flammeolus*). *The Birds of North America.*

Linnell, J. D. C., Swenson, J. E., Anderson, R., & Barnes, B. (2000). How vulnerable are denning bears to disturbance? *Wildlife Society Bulletin, 28*(2), 400-413.

Litschert, S. E., & MacDonald, L. H. (2009). Frequency and characteristics of sediment delivery pathways from forest harvest units to streams. *Forest Ecology and Management, 259*(2), 143-150. doi:http://dx.doi.org/10.1016/j.foreco.2009.09.038

Lloret, F., Escudero, A., Iriondo, J. M., Martínez-Vilalta, J., & Valladares, F. (2012). Extreme climatic events and vegetation: the role of stabilizing processes. *Global Change Biology, 18*(3), 797-805. doi:10.1111/j.1365-2486.2011.02624.x

Lowrey, L. (2016). *Monitoring rising populations of Douglas-fir tussock moth in Southern Idaho*. (BFO-TR-2016-09). Boise, ID: U.S. Department of Agriculture, Forest Service, Forest Health Protection

Lyon, J. L., & Canfield, J. E. (1991). *Habitat selections by Rocky Mountain elk under hunting season stress.* Paper presented at the Elk Vulnerability Symposium, Montana State University, Bozeman, MT.

Lyon, J. L., & Christensen. (1992). *A partial glossary of elk management terms* (INT-288).

Lyon, J. L., & Christensen, A. G. (2002). Elk and land management. In D. E. Toweill & J. W. Thomas (Eds.), *North American elk: Ecology and management* (pp. 557-575). Washington, DC: Smithsonian Institution Scholarly Press.

Lyon, L. J. (1977). *Attrition of lodgepole pine snags on the Sleeping Child Burn, Montana* (USDA Forest Service Research Note INT-219).

Lyon, L. J. (1979). Habitat effectiveness for elk as influenced by roads and cover. *Journal of Forestry, 77*(10), 658-660.

Lyon, L. J., Huff, M. H., & Smith, J. K. (2000). Fire effects on fauna at landscape scales. In J. K. Smith (Ed.), *Wildland fire in ecosystems: effects of fire on fauna* (pp. 43-50). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Lyon, L. J., Lonner, T. N., Weigand, J. P., Marcum, C. L., Edge, W. D., Jones, J. D., . . . Hicks, L. L. (1985). *Coordinating elk and timber management: Final report of the Montana cooperative elk-logging study 1970-1985*.

Mace, R. D. (2004). Integrating science and road access management: Lessons from the Northern Continental Divide Ecosystem. *Ursus, 15*(1), 129-136. doi:10.2192/1537-6176(2004)015<0129:ISARAM>2.0.CO;2

Mace, R. D., Carney, D. W., Chilton-Radandt, T., Courville, S. A., Haroldson, M. A., Harris, R. B., . . . Wenum, E. (2012). Grizzly bear population vital rates and trend in the Northern Continental Divide Ecosystem, Montana. *Journal of Wildlife Management, 76*(1), 119-128. doi:http://dx.doi.org/10.1002/jwmg.250

Mace, R. D., & Manley, T. L. (1993). *South Fork Flathead River grizzly bear project: Progress report for 1992*.

Mace, R. D., & Roberts, L. J. (2012). *Northern Continental Divide ecosystem grizzly bear monitoring team annual report, 2011*.

Mace, R. D., & Waller, J. S. (1997a). *Final report: Grizzly bear ecology in the Swan Mountains Montana*.

Mace, R. D., & Waller, J. S. (1997b). Spatial and temporal interaction of male and female grizzly bears in northwestern Montana. *The Journal of Wildlife Management, 61*(1), 39-52. doi:http://dx.doi.org/10.2307/3802412

Mace, R. D., Waller, J. S., Manley, T. L., Ake, K., & Wittinger, W. T. (1999). Landscape evaluation of grizzly bear habitat in western Montana. *Conservation Biology, 13*(2), 367-377. doi:http://dx.doi.org/10.1046/j.1523-1739.1999.013002367.x

Mace, R. D., Waller, J. S., Manley, T. L., Lyon, L. J., & Zuuring, H. (1996). Relationships among grizzly bears, roads and habitat in the Swan Mountains, Montana. *Journal of Applied Ecology, 33*(6), 1395-1404. doi:http://dx.doi.org/10.2307/2404779

Marlon, J. R., Bartlein, P. J., Gavin, D. G., Long, C. J., Anderson, R. S., Briles, C. E., . . . Walsh, M. K. (2012). Long-term perspective on wildfires in the western USA. *Proceedings of the National Academy of Sciences, 109*(9), E535-543. doi:http://dx.doi.org/10.1073/pnas.1112839109

Martinez, P. J., Bigelow, P. E., Deleray, M. A., Fredenberg, W. A., Hansen, B. S., Horner, N. J., . . . Viola, A. E. (2009). Western lake trout woes. *Fisheries, 34*(9), 424-442. doi:http://dx.doi.org/10.1577/1548-8446-34.9.424

McCallum, D. A. (1994). *Flammulated owl*.

McIver, J. D., & Starr, L., tech. eds. . (2000). *Environmental effects of postfire logging: Literature review and annotated bibliography*. (Gen. Tech. Rpt. PNW-GTR-486). Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station

McKelvey, K. S., Young, M. K., Knotek, W. L., Carim, K. J., Wilcox, T. M., Padgett-Stewart, T. M., & Schwartz, M. K. (2016). Sampling large geographic areas for rare species using environmental DNA: a study of bull trout Salvelinus confluentus occupancy in western Montana. *Journal of Fish Biology, 88*(3), 1215-1222. doi:http://dx.doi.org/10.1111/jfb.12863

McKenzie, D., Peterson, D. L., & Littell, J. (2009). Global warming and stress complexes in forests of western North America. In A. Bytnerowicz, M. Arbaugh, C. Andersen, & A. Riebau (Eds.), *Forest fires and air pollution issues*: Elsevier, Ltd.

McKinney, S. T., Fiedler, C. E., & Tomback, D. F. (2009). Invasive pathogen threatens bird–pine mutualism: implications for sustaining a high-elevation ecosystem. *Ecological Applications, 19*(3), 597-607. doi:http://dx.doi.org/10.1890/08-0151.1

McLellan, B. N. (2015). Some mechanisms underlying variation in vital rates of grizzly bears on a multiple use landscape. *Journal of Wildlife Management, 79*(5), 749-765. doi:http://dx.doi.org/10.1002/jwmg.896

McLellan, B. N., & Shackleton, D. M. (1988). Grizzly bears and resource-extraction industries: Effects of roads on behavior, habitat use and demography. *Journal of Applied Ecology, 25*(2), 451-460. doi:http://dx.doi.org/10.2307/2403836

Means, R. E. (2011). Synthesis of lower treeline limber pine (pinus flexilis) woodland knowledge, research needs, and management considerations. In R. E. Keane, D. F. Tomback, M. P. Murray, & C. M. Smith (Eds.), *The future of high-elevation, five-needle white pines in western North America: Proceedings of the High Five Symposium*. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Metlen, K. L., & Fiedler, C. E. (2006). Restoration treatment effects on the understory of ponderosa pine/Douglas-fir forests in western Montana, USA. *Forest Ecology and Management, 222*(1–3), 355-369. doi:http://dx.doi.org/10.1016/j.foreco.2005.10.037

Meyerson, L. A., & Mooney, H. A. (2007). Invasive alien species in an era of globalization. *Frontiers in Ecology and the Environment, 5*(4), 199-208.

MHP-MTFWP. (2014). *Ecological systems*.

Milburn, A., Bollenbacher, B., Manning, M., & Bush, R. (2015). *Region 1 existing and potential vegetation groupings used for broad-level analysis and monitoring*.

Milburn, A., Carnwath, G., Fox, S., Henderson, E., & Bush, R. (2019). *Region 1 Large-tree Structure Classification Used for Broad-level Analysis and Monitoring* (19-3 v1.0).

Millar, C. I., & Stephenson, N. L. (2015). Temperate forest health in an era of emerging megadisturbance. *Science, 349(6250),* 823-826.

Mitchell, R. G., & Buffam, P. E. (2001). Patterns of long-term balsam woolly adelgid infestations and effects in Oregon and Washington. *Western Journal Applied Forestry, 16*(3), 121-126.

Mitchell, R. G., & Preisler, H. K. (1998). Fall rate of lodgepole pine killed by the mountain pine beetle in central Oregon. *Western Journal of Applied Forestry, 13*(1), 23-26.

Mitchell, R. G., & Wright, K. H. (1967). Foreign Predator Introductions for Control of the Balsam Woolly Aphid in the Pacific Northwest. *Journal of Economic Entomology, 60*(1), 140-147. doi:10.1093/jee/60.1.140

Montana Aquatic Nuisance Species (ANS) Steering Committee. (2002). *Montana aquatic nuisance species (ANS) management plan*.

Montana Department of Environmental Quality. (1998). *Montana water quality 1998*.

Montana Department of Environmental Quality. (2010). *Montana/Idaho Airshed Group operating guide*.

Montana Department of Environmental Quality. (2014). *Montana 2014 final water quality integrated report*.
Montana Department of Environmental Quality. (2016). *Draft 2016 water quality integrated report*.
Montana Department of Environmental Quality. (2017). *Regional Haze 5-Year Progress Report*.
Montana Department of Natural Resources and Conservation. (1999). *Best management practices for grazing*.
Montana Department of Natural Resources and Conservation. (2006). *Montana guide to streamside management zone law and rules*.
Montana Fish Wildlife and Parks. (1978). *1978 Montana Statewide Comprehensive Outdoor Recreation Plan (SCORP)*.
Montana Fish Wildlife and Parks. (2004). *Montana statewide elk management plan 2004*.
Montana Fish Wildlife and Parks. (2005). *Elk Survey Data*.
Montana Fish Wildlife and Parks. (2007). *Memorandum of understanding and conservation agreement for westslope cutthroat trout and Yellowstone cutthroat trout in Montana*.
Montana Fish Wildlife and Parks. (2013). *U.S. Forest service and Montana department of fish wildlife and parks collaborative overview and recommendations for elk habitat management on the Custer, Gallatin, Helena, and Lewis and Clark National Forests*.
Montana Fish Wildlife and Parks. (2014). *Northcentral Montana westslope cutthroat trout restoration update*. Great Falls, MT: Montana Fish, Wildlife & parks, Region 4
Montana Fish Wildlife and Parks. (2015). Montana statewide elk management plan and population status charts and objective maps.
Montana Fish Wildlife and Parks. (2016). *Incidental lynx take 2000-2015--Montana*.
Montana Fish Wildlife and Parks. (2017). *Nongame wildlife management bureau annual report*. Helena, MT: Montana Fish, Wildlife & Parks
Montana Fish Wildlife and Parks. (2019a). *2019-2020 Elk Shoulder Seasons*.
Montana Fish Wildlife and Parks. (2019b). *Montana 2019 Elk Counts*.
Montana Fish Wildlife and Parks. (2019c). *Montana Elk Objective Maps*.
Montana Fish, W. P. (2015). *Elk Refuge Areas and Their Impacts*. Retrieved from http://fwp.mt.gov/fishAndWildlife/management/elk/
Montana Natural Heritage Program. (2014). *Montana Natural Heritage Program species of concern report*.
Montana Natural Heritage Program, & Montana Fish Wildlife and Parks. (2019). Montana field guides. from Montana Natural Heritage Program and Montana Fish, Wildlife and Parks http://fieldguide.mt.gov/default.aspx
Montgomery, M. E., & Havill, N. P. (2014). II Balsam Woolly Adelgid (Adelges piceae [Ratzeburg]) (Hemiptera: Adelgidae). In R. Van Driesche & R. Reardon (Eds.), *The Use of Classical Biological Control to Preserve Forests in North America* (pp. 9-19). Morgantown, WV: U.S. Department of Agriculture, Forest Service Forest Health Technology Enterprise Team. (Reprinted from: 2016).
Moody, J. A., & Martin, D. A. (2001a). Initial hydrologic and geomorphic response following a wildfire in the Colorado Front Range. *Earth Surface Processes and Landforms, 26*(10), 1049-1070. doi:http://dx.doi.org/10.1002/esp.253
Moody, J. A., & Martin, D. A. (2001b). Post-fire, rainfall intensity-peak discharge relations for three mountainous watersheds in the western USA. *Hydrological Processes, 15*(15), 2981-2993. doi:http://dx.doi.org/10.1002/hyp.386
Moriarty, K., Cheng, A. S., Hoffman, C. M., Cottrell, S. P., & Alexander, M. E. (2019). Firefighter observations of "surprising" fire behavior in mountain pine beetle-attacked lodgepole pine forests. *Fire, 2*(2). doi:10.3390/fire2020034
Mowat, G., Poole, K. G., & O'Donoghue, M. (1999). Chapter 9: Ecology of lynx in northern Canada and Alaska. In L. F. Ruggiero, K. B. Aubry, S. W. Buskirk, G. M. Koehler, C. J. Krebs, K. S. McKelvey, & J. R. Squires (Eds.), *Ecology and conservation of lynx in the United States*

Gen.Tech. Rep. RMRS-GTR-30WWW. (pp. 265-306). Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Muhlfeld, C. C., Kalinowski, S. T., McMahon, T. E., Taper, M. L., Painter, S., Leary, R. F., & Allendorf, F. W. (2009). Hybridization rapidly reduces fitness of a native trout in the wild. *Biology Letters, 5*(3), 328-331. doi:http://dx.doi.org/10.1098/rsbl.2009.0033

Muhlfeld, C. C., Kovach, R. P., Jones, L. A., Al-Chokhachy, R., Boyer, M. C., Leary, R. F., . . . Allendorf, F. W. (2014). Invasive hybridization in a threatened species is accelerated by climate change. *Nature Climate Change, 4*(7), 620-624. doi:http://dx.doi.org/10.1038/nclimate2252

National Interagency Fire Center. (2017). *Interagency standards for fire and fire aviation operations*. (NFES 2724). Boise, ID: National Interagency Fire Center,

National Interagency Fuels, Fire, & Vegetation Technology Transfer. (2010). *Interagency fire regime condition class (FRCC) guidebook*. Boise, ID: U.S. Department of Agriculture, Forest Service, National Interagency Fuels, Fire, & Vegetation Technology Transfer (NIFFVTT)

Naylor, L. M., Wisdom, M. J., & Anthony, R. G. (2009). Behavioral responses of North American elk to recreational activity. *Journal of Wildlife Management, 73*(3), 328-338. doi:http://dx.doi.org/10.2193/2008-102

Nelson, L., Clancy, P., Horton, T., Humphrey, T., Lohrenz, T., Moser, D., . . . Vaughn, M. (2011). *Status and conservation needs for westslope cutthroat trout in southwest Montana*.

Nelson, M. D., Johnson, D. H., Linkhart, B. D., & Miles, P. D. (2009). *Flammulated owl (otus flammeolus) breeding habitat abundance in ponderosa pine forests of the United States.* Paper presented at the Fourth International Partners in Flight Conference: Tundra to Tropics, McAllen, Texas.

Newton, L. P., & Hain, F. P. (2005). Host interactions of the balsam woolly adelgid. In B. Onken & R. Reardon (Eds.), *Third Symposium on Hemlock Woolly Adelgid in the Eastern United States, February 1-3, 2005, Renaissance Asheville Hotel, Asheville, North Carolina (FHTET-2005-01)* (pp. 11). Morgantown, WV: U.S. Department of Agriculture, Forest Service, Forest Health Technology Enterprise Team.

Nielsen, S. E., Herrero, S., Boyce, M. S., Mace, R. D., Benn, B., Gibeau, M. L., & Jevons, S. (2004). Modelling the spatial distribution of human-caused grizzly bear mortalities in the Central Rockies ecosystem of Canada. *Biological Conservation, 120*(1), 101-113. doi:https://doi.org/10.1016/j.biocon.2004.02.020

Northern Continental Divide Ecosystem (NCDE) Access Task Group. (1995). *Interm motorized access management direction Northern Continental Divide recovery zone*.

Northern Continental Divide Ecosystem Subcommittee. (2019). *Conservation strategy for the grizzly bear in the Northern Continental Divide Ecosystem*.

Northern Region, Geospatial Group. (2016). *Canada lynx habitat mapping for Region 1 eastside forests*. (Technical Guide NRGG_TG_15-4_v1.2). Missoula, MT: U.S. Department of Agriculture, Forest Service, Northern Region, Geospatial Group

Noss, R. F., Franklin, J. F., Baker, W., Schoennagel, T., & Moyle, P. B. (2006). *Ecological science relevant to management poilicies for fire-prone forests of the western United States*.

Oliver, C. D., & Larson, B. C. (1996). *Forest stand dynamics* (Update ed.). New York, NY: John Wiley and Sons.

Parks, C. G., Radosevich, S. E., Endress, B. A., Naylor, B. J., Anzinger, D., Rew, L. J., . . . Dwire, K. A. (2005). Natural and land-use history of the Northwest mountain ecoregions (USA) in relation to patterns of plant invasions. *Perspectives in Plant Ecology, Evolution and Systematics, 7*, 137-158.

Parks, S. A., Miller, C., Abatzoglou, J. T., Holsinger, L. M., Parisien, M.-A., & Dobrowski, S. Z. (2016). How will climate change affect wildland fire severity in the western US? *Environmental Research Letters, 11*(3). doi:10.1088/1748-9326/11/3/035002

Parks, S. A., Miller, C., Holsinger, L. M., Baggett, L. S., & Bird, B. J. (2016). Wildland fire limits subsequent fire occurrence. *International Journal of Wildland Fire, 25*(2). doi:10.1071/wf15107

Parks, S. A., Miller, C., Parisien, M.-A., Holsinger, L. M., Dobrowski, S. Z., & Abatzoglou, J. (2015). Wildland fire deficit and surplus in the western United States, 1984–2012. *Ecosphere, 6*(12). doi:10.1890/es15-00294.1

Pauchard, A., Kueffer, C., Dietz, H., Daehler, C. C., Alexander, J., Edwards, P. J., . . . Seipel, T. (2009). Ain't no mountain high enough: plant invasions reaching new elevations. *Frontiers in Ecology and the Environment, 7*(9), 479-486. doi:http://dx.doi.org/10.1890/080072

Peck, C. P., Van Manen, F. T., Costello, C. M., Haroldson, M. A., Landenburger, L. A., Roberts, L. L., . . . Mace, R. D. (2017). Potential paths for male-mediated gene flow to and from an isolated grizzly bear population. *Ecosphere, 8*(10), 1-19.

Peterson, D. L., Agee, J. K., Aplet, G. H., Dykstra, D. P., Graham, R. T., Lehmkuhl, J. F., . . . Stuart, J. D. (2009). *Effects of timber harvest following wildfire in western North America*. (Gen. Tech. Rpt. PNW-GTR-776). Portland, OR: U.S. Department of Agriculture,, Forest Service, Pacific Northwest Research Station

Petrie, M. D., Bradford, J. B., Hubbard, R. M., Lauenroth, W. K., Andrews, C. M., & Schlaepfer, D. R. (2017). Climate change may restrict dryland forest regeneration in the 21st century. *Ecology, 98*(6), 1548–1559. doi:10.1002/ecy.1791

Pfankuch, D. J. (1975). *Stream reach inventory and channel stability evaluation: A watershed management procedure* (R1-75-002).

Picket, S., & White, P. S. (1985). Natural disturbance and patch dynamics: an introduction. In S. Picket & P. S. White (Eds.), *The ecology of natural disturbance and patch dynamics* (pp. 3-13). New York: Academic.

Pierce, R., & Podner, C. (2006). *The Big Blackfoot River fisheries restoration report for 2004 and 2005*.

Pierce, R. W., Podner, C., & Carim, K. (2013). Response of wild trout to stream restoration over two decades in the Blackfoot River basin, Montana. *Transactions of the American Fisheries Society, 142*, 68-81. doi:http://dx.doi.org/10.1080/00028487.2012.720626

Platt, W. S. (1991). Livestock grazing. In W. R. Meehan (Ed.), *Influences of forest and rangeland management on salmonid fishes and their habitats* (pp. 389-423). Bethesda, MD: American Fisheries Society.

Poff, B., Koestner, K. A., Neary, D. G., & Henderson, V. (2011). Threats to riparian ecosystems in western North America: An analysis of existing literature. *Journal of the American Water Resources Association, 47*(6), 1241-1254. doi:http://dx.doi.org/10.1111/j.1752-1688.2011.00571.x

Polfus, J. (2011). *Literature review and synthesis on the effects of residential development on ungulate winter range in the Rocky Mountain west*.

Pollet, J., & Omi, P. N. (2002). Effect of thinning and prescribed burning on crown fire severity in ponderosa pine forests. *International Journal of Wildland Fire, 11*, 1-10.

Preisler, H. K., Ager, A. A., & Wisdom, M. J. (2006). Statistical methods for analysing responses of wildlife to human disturbance. *Journal of Applied Ecology, 43*, 164-172. doi:http://dx.doi.org/10.1111/j.1365-2664.2005.01123.x

Proctor, M. F., Kasworm, W. F., Annis, K. M., MacHutchon, A. G., Teisberg, J. E., Radandt, T. G., & Servheen, C. (2018). Conservation of threatened Canada-USA trans-border grizzly bears linked to comprehensive conflict reduction. *Human-Wildlife Interactions, 12*(3), 348-372.

Proctor, M. F., Lamb, C. T., & Machutchon, A. G. (2017). *The grizzly dance of berries and bullets: The relationship between bottom up food resources, huckleberries, and top down mortality risk on grizzly bear population processes in southeast British Columbia.*

Proctor, M. F., McLellan, B. N., Stenhouse, G. B., Mowat, G., Lamb, C. T., & Boyce, M. (2018). *Resource Roads and Grizzly Bears in British Columbia, and Alberta*.

Proffitt, K. M., Gude, J. A., Hamlin, K. L., & Messer, M. A. (2013). Effects of hunter access and habitat security on elk habitat selection in landscapes with a public and private land matrix. *Journal of Wildlife Management, 77*(3), 514-524. doi:http://dx.doi.org/10.1002/jwmg.491

Proffitt, K. M., Hebblewhite, M., Peters, W., Hupp, N., & Shamhart, J. (2016). Linking landscape-scale differences in forage to ungulate nutritional ecology. *Ecological Applications, 26*(7), 2156-2174. doi:http://dx.doi.org/10.1002/eap.1370

Randall, C., & Bush, R. (2010). *R1 forest insect hazard rating system user guide for use with inventory data stored in FSVEG and/or analyzed with the forest vegetation simulator* (Numbered Report 10-05).

Ranglack, D. H., Proffitt, K. M., Canfield, J. E., Gude, J. A., Rotella, J., & Garrott, R. A. (2017). Security areas for elk during archery and rifle hunting seasons. *The Journal of Wildlife Management, 81*(5), 778-791. doi:10.1002/jwmg.21258

Reeves, G. H., Benda, L. E., Burnett, K. M., Bisson, P. A., & Sedell, J. R. (1995). *A disturbance-based ecosystem approach to maintaining and restoring freshwater habitats of evolutionarily significant units of anadromous salmonids in the Pacific Northwest.* Paper presented at the Symposium on Evolution and the Aquatic Ecosystem: Defining Unique Units in Population Conservation, Monterey, California, USA.

Regier, H. A. (1993). The notion of natural and cultural integrity. In S. Woodley, J. Kay, & G. Francis (Eds.), *Ecological Integrity and the Management of Ecosystems* (pp. 3-18). Delray Beach, FL: St. Lucie Press.

Reinhardt, E. D., Keane, R. E., Calkin, D. E., & Cohen, J. D. (2008). Objectives and considerations for wildland fuel treatment in forested ecosystems of the interior western United States. *Forest and Ecology Management, 256*(12), 1997-2006. doi:http://dx.doi.org/10.1016/j.foreco.2008.09.016

Retzlaff, M. L., Leirfallom, S. B., & Keane, R. E. (2016). *A 20-year reassessment of the health and status of whitebark pine forests in the Bob Marshall Wilderness Complex, Montana, USA*. (Research Note RMRS-RN-73). Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Rhodes, J., McCullough, D. A., & Espinosa, F. A., Jr. (1994). *A course screening process for evaluation of the effects of land management activities on salmon spawning and rearing habitat in ESA consultations* (Technical Report 94-4).

Rieman, B. E., Isaak, D., Adams, S., Horan, D., Nagel, D., Luce, C., & Myers, D. (2007). Anticipated climate warming effects on bull trout habitats and populations across the interior Columbia River Basin. *Transactions of the American Fisheries Society, 136*, 1552-1565. doi:http://dx.doi.org/10.1577/T07-028.1

Rieman, B. E., Lee, D. C., Chandler, G., & Myers, D. (1997, 13-16 November). *Does wildfire threaten extinction for salmonids? Responses of redband trout and bull trout following recent large fires on the Boise National Forest.* Paper presented at the Proceedings-Fire Effects on Rare and Endangered Species and Habitats Conference, Coeur d'Alene, ID.

Ritchie, M. W., Wing, B. M., & Hamilton, T. A. (2008). Stability of the large tree component in treated and untreated late-seral interior ponderosa pine stands. *Canadian Journal of Forest Research, 38*(5), 919-923. doi:http://dx.doi.org/10.1139/X07-242

Robbins, C. T., Lopez-Alfaro, C., Rode, K. D., Tøien, Ø., & Nelson, O. L. (2012). Hibernation and seasonal fasting in bears: The energetic costs and consequences for polar bears. *Journal of Mammalogy, 93*(6), 1493-1503. doi:10.1644/11-mamm-a-406.1

Robichaud, P. R. (2000). Fire effects on infiltration rates after prescribed fire in Northern Rocky Mountain forests, USA. *Journal of Hydrology, 231-232*, 220-229.

Rollins, M. G., Morgan, P., & Swetnam, T. (2002). Landscape-scale controls over 20th century fire occurrence in two large Rocky Mountain (USA) wilderness areas. *Landscape Ecology, 17*(6), 539-557. doi:http://dx.doi.org/10.1023/A:1021584519109

Rone, G. (2008). *Broadaxe Timber Sale 2007-Soils Field Report*.

Roper, B. B., Saunders, W. C., & Ojala, J. V. (2019). Did changes in western federal land management policies improve salmonid habitat in streams on public lands within the Interior Columbia River Basin? *Environ Monit Assess, 191*(9), 574. doi:10.1007/s10661-019-7716-5

Rother, M. T., & Veblen, T. T. (2016). Limited conifer regeneration following wildfires in dry ponderosa pine forests of the Colorado Front Range. *Ecosphere, 7*(12), 1-17. doi:10.1002/ecs2.1594

Ruediger, B., Claar, J., Gniadek, S., Holt, B., Lewis, L., Mighton, S., . . . Williamson, A. (2000). *Canada lynx conservation assessment and strategy (2nd ed.)*. Missoula, MT: U.S. Department of Agriculture,, Forest Service, and U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Land Management, and the National Park Service

Russell, R. E., Saab, V. A., Dudley, J. G., & Rotella, J. J. (2006). Snag longevity in relation to wildfire and postfire salvage logging. *Forest Ecology and Management, 232*(1–3), 179-187. doi:http://dx.doi.org/10.1016/j.foreco.2006.05.068

Saab, V. A., & Dudley, J. G. (1998). *Responses of cavity-nesting birds to stand-replacement fire and salvage logging in ponderosa pine/Douglas-fir forests of southwestern Idaho* (Research Paper RMRS-RP-11).

Safranyik, L., Nevill, R., & Morrison, D. (1998). Effects of stand density management on forest insects and diseases. *Technology Transfer Note*(12).

Sala, A., Peters, G. D., McIntyre, L. R., & Harrington, M. G. (2005). Physiological responses of ponderosa pine in western Montana to thinning, prescribed fire and burning season. *Tree Physiology, 25*(3), 339-348.

Salwasser, H. (2009). Regional conservation of old-growth forest in a changing world: A global and temporal perspective. In T. A. Spies & S. L. Duncan (Eds.), *Old growth in a new world: A Pacific Northwest icon reexamined* (pp. 222-232). Washington, DC: Island Press.

Samman, S., & Logan, J. (2000). *Assessment and response to bark beetle outbreaks in the Rocky Mountain area*. (Gen. Tech. Rpt. RMRS-GTR-62). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Samson, F. (2006). *Habitat estimates for maintaining viable populations of the northern goshawk, black-backed woodpecker, flammulated owl, pileated woodpecker, American marten, and fisher*.

Savage, S., Lawrence, R., Squires, J. R., Holbrook, J., Id, L., Olson, L., . . . Cohen, W. (2018). Shifts in Forest Structure in Northwest Montana from 1972 to 2015 Using the Landsat Archive from Multispectral Scanner to Operational Land Imager. *Forests, 9*, 20. doi:10.3390/f9040157

Schmidt, K. M., Menakis, J. P., Hardy, C. C., Hann, W. J., & Bunnel, D. L. (2002). *Development of course-scale spatial data for wildland fire and fuel management*. (Gen.Tech. Rpt. RMRS-GTR-87). Fort Collins, CO: U.S. Department of Agriculture,, Forest Service, Rocky Mountain Research Station

Schwartz, C. C., Haroldson, M. A., & White, G. C. (2010). Hazards affecting grizzly bear survival in the Greater Yellowstone ecosystem. *Journal of Wildlife Management, 74*(4), 654-667. doi:http://dx.doi.org/10.2193/2009-206

Schwartz, C. C., Haroldson, M. A., White, G. C., Harris, R. B., Cherry, S., Keating, K. A., . . . Servheen, C. (2006). Temporal, spatial, and environmental influences on the demographics of grizzly bears in the Greater Yellowstone Ecosystem. *Wildlife Monographs*(161), 1-68.

Servheen, C., Waller, J. S., & Sandstrom, P. (2001). *Identification and management of linkage zones for grizzly bears between the large blocks of public land in the northern Rocky Mountains Linkage Zone Report Update, updated September 4, 2001*.

Servheen, C., Waller, J. S., & Sandstrom, P. (2003). *Identification and management of linkage zones for wildlife between the large blocks of public land in the northern Rocky Mountains*.

Shepard, B. B., May, B. E., & Urie, W. (2005). Status and conservation of westslope cutthroat trout within the western United States. *North American Journal of Fisheries Management, 25*(4), 1426-1440. doi:http://dx.doi.org/10.1577/m05-004.1

Shepperd, W. D. (1990). *Initial growth, development, and clonal dynamics of regenerated aspen in the Rocky Mountains* (Research Paper RM-312).

Shepperd, W. D., Bartos, D. L., & Mata, S. A. (2001). Above- and below-ground effects of aspen clonal regeneration and succession to conifers. *Canadian Journal of Forest Research, 31*(5), 739-745. doi:http://dx.doi.org/10.1139/x01-001

Shore, T. L., Safranyik, L., Riel, W. G., Ferguson, M., & Castonguay, J. (1999). Evaulation of factors affecting tree and stand susceptibility to the douglas-fir beetle (Coleoptera: Scolytidae). *The Canadian Entomologist, 131*, 831-839.

Six, D., Biber, E., & Long, E. (2014). Management for mountain pine beetle outbreak suppression: Does relevant science support current policy? *Forests, 5*(1), 103-133. doi:http://dx.doi.org/10.3390/f5010103

Skovlin, J. M., Zager, p., & Johnson, B. K. (2002). Elk habitat selection and evaluation. In D. E. Toweill & J. W. Thomas (Eds.), *North American elk: Ecology and management* (pp. 531-555). Washington, DC: Smithsonian Institution Scholarly Press.

Smith, A. D. (1940). A discussion of the application of a climatological diagram, the hythergraph, to the distribution of natural vegetation types. *Ecology, 21*(2), 184-191.

Smith, H. Y., & Arno, S. F., (eds.). (1999). *Eighty-eight years of chance in a managed ponderosa pine forest*. (Gen. Tech. Rpt. RMRS-GTR-23). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Spies, T. A., Hemstrom, M. A., Youngblood, A., & Hummel, S. (2006). Conserving old-growth forest diversity in disturbance-prone landscapes. *Conservation Biology, 20*(2), 351-362. doi:http://dx.doi.org/10.1111/j.1523-1739.2006.00389.x

Spracklen, D. V., Mickley, L. J., Logan, J. A., Hudman, R. C., Yevich, R., Flannigan, M. D., & Westerling, A. L. (2009). Impacts of climate change from 2000 to 2050 on wildfire activity and carbonaceous aerosol concentrations in the western United States. *Journal of Geophysical Research-Atmospheres, 114*. doi:http://dx.doi.org/10.1029/2008jd010966

Squires, J. R., Copeland, J. P., Ulizio, T. J., Schwartz, M. K., & Ruggiero, L. F. (2007). Sources and patterns of wolverine mortality in western Montana. *Journal of Wildlife Management, 71*(7), 2213-2220. doi:http://dx.doi.org/10.2193/2007-053

Squires, J. R., Decesare, N. J., Kolbe, J. A., & Ruggiero, L. F. (2010). Seasonal resource selection of Canada lynx in managed forests of the northern Rocky Mountains. *The Journal of Wildlife Management, 74*(8), 1648-1660. doi:http://dx.doi.org/10.2193/2009-184

Squires, J. R., DeCesare, N. J., Olson, L. E., Kolbe, J. A., Hebblewhite, M., & Parks, S. A. (2013). Combining resource selection and movement behavior to predict corridors for Canada lynx at their southern range periphery. *Biological Conservation, 157*, 187-195. doi:http://dx.doi.org/10.1016/j.biocon.2012.07.018

Squires, J. R., Olson, L. E., Roberts, E. K., Ivan, J. S., & Hebblewhite, M. (2019). Winter recreation and Canada lynx: reducing conflict through niche partitioning. *Ecosphere, 10*.

Squires, J. R., Olson, L. E., Turner, D. L., DeCesare, N. J., & Kolbe, J. A. (2012). Estimating detection probability for Canada lynx *Lynx canadensis* using snow-track surveys in the northern Rocky Mountains, Montana, USA. *Wildlife Biology, 18*, 215-224.

Stagliano, D. M. (2015). *Re-evaluation and trend analysis of western pearlshell mussel (SWG tier 1) populations across watersheds of western Montana*.

Steeger, C., & Quesnel, H. (2003). *Impacts of partial cutting on old-growth forests in the Rocky Mountain trench, British Columbia*.

Stephens, S. L. (1998). Evaluation of the effects of silvicultural and fuels treatments on potential fire behaviour in Sierra Nevada mixed-conifer forests. *Forest Ecology and Management, 105*(1-3), 21-35. doi:http://dx.doi.org/10.1016/S0378-1127(97)00293-4

Stephens, S. L., & Moghaddas, J. J. (2005). Fuel treatment effects on snags and coarse woody debris in a Sierra Nevada mixed conifer forest. *Forest Ecology and Management, 214*, 53-64.

Stephens, S. L., Moghaddas, J. J., Edminster, C., Fiedler, C. E., Haase, S., Harrington, M., . . . Youngblood, A. (2009). Fire treatment effects on vegetation structure, fuels, and potential fire severity in western U.S. forests. *Ecological Applications, 19*(2), 305-320. doi:http://dx.doi.org/10.1890/07-1755.1

Stephenson, N. L., Das, A. J., Condit, R., Russo, S. E., Baker, P. J., Beckman, N. G., . . . Zavala, M. A. (2014). Rate of tree carbon accumulation increases continuously with tree size. *Nature, 000*, 1-12. doi:http://dx.doi.org/10.1038/nature12914

Stevens-Rumann, C. S., Kemp, K. B., Higuera, P. E., Harvey, B. J., Rother, M. T., Donato, D. C., . . . Veblen, T. T. (2017). Evidence for declining forest resilience to wildfires under climate change. *Ecol Lett, 21*(2), 243-252. doi:10.1111/ele.12889

Steventon, J. D., MacKenzie, K. L., & Mahon, T. E. (1998). Response of small mammals and birds to partial cutting and clearcutting in northwest British Columbia. *Forestry Chronicle, 74*(5), 703-713.

Stewart, K. M., Bowyer, R. T., Dick, B. L., Johnson, B. K., & Kie, J. G. (2005). Density-dependent effects on physical condition and reproduction in North American elk: An experimental test. *Oecologia, 143*(1), 85-93. doi:http://dx.doi.org/10.1007/s00442-004-1785-y

Subcommittee, N. C. D. E. (2017). *Biennial Report of Motorized Access Baselinewithin the Primary Conservation Area (PCA) Northern Continental Divide Ecosystem (NCDE)*.

Sugden, B. D., & Woods, S. W. (2007). Sediment production from forest roads in western Montana. *JAWRA Journal of the American Water Resources Association, 43*(1), 193-206. doi:http://dx.doi.org/10.1111/j.1752-1688.2007.00016.x

Taylor, K., Brummer, T., Taper, M. L., Wing, A., & Rew, L. J. (2012). Human-mediated long-distance dispersal: An empirical evaluation of seed dispersal by vehicles. *Diversity and Distributions, 18*(9), 942-951. doi:http://dx.doi.org/10.1111/j.1472-4642.2012.00926.x

Teisberg, J. E., Madel, M. J., Mace, R. D., Servheen, C. W., & Robbins, C. T. (2015). *Diet composition and body condition of Northern Continental Divide grizzly bears: Final report, March 2015*.

Tesch, S. D. (1981). Comparative stand development in an old-growth douglas-fir (*Psetloatiga menziesil* var. *glauca*) forest in western Montana. *Canadian Journal of Forest Research, 11*, 82-89.

Thomas, C., Chatel, J., Roper, B., Jacobson, L., & Hanson, J. (2018). *Biological assessment addressing the effects of ongoing implementation of 26 land resource management plans on the bull trout and bull trout critical habitat as amended by the 1994 Northwest Forest Plan, the interim strategies for managing anadromous fish-producing watersheds in Eastern Oregon, Washington, Idaho, and portions of California and the inland native fish strategy, and the Southwest Idaho ecosystem and the Beaverhead-Deerlodge Revised Forest Plans*. U.S. Department of Agriculture, Forest Service

Thomas, J. W. (1979). *Wildlife habitats in managed forests: The Blue Mountains of Oregon and Washington*. Washington, DC: USDA Forest Service.

Tobalske, B. W., Shearer, R. C., & Hutto, R. L. (1991). *Bird populations in logged and unlogged western larch/Douglas-fir forest in northwestern Montana* (Research Paper INT-442).

Tomback, D. F., Arno, S. F., & Keane, R. E. (2001). The compelling case for management intervention. In D. F. Tomback, S. F. Arno, & R. E. Keane (Eds.), *Whitebark pine communities: Ecology and restoration* (pp. 3-25). Washington DC: Island Press.

Tomback, D. F., & Kendall, K. C. (2001). Biodiversity losses: The downward spiral. In D. F. Tomback, S. F. Arno, & R. E. Keane (Eds.), *Whitebark pine communities: Ecology and restoration* (pp. 243-262). Washington, DC: Island Press.

Toney, J. C., Rice, P. M., & Forcella, F. (1998). Exotic plant records in the northwest United States 1950-1996: An ecological Assessment. *Northwest Science, 72*(3), 198-213.

Turner, M. G., Donato, D. C., & Romme, W. H. (2013). Consequences of spatial heterogeneity for ecosystem services in changing forest landscapes: Priorities for future research. *Landscape Ecology, 28*(6), 1081-1097. doi:http://dx.doi.org/10.1007/s10980-012-9741-4

Turner, M. G., Gardner, R. H., & O'Neill, R. V. (2001). *Landscape ecology in theory and practice: Pattern and process*. New York, NY: Springer Science+Business Media, Inc.

U. S. Department of Agriculture, Forest Service. (2019). *2018 Biennial Report of Developed Recreation Baseline within the Primary Conservation Area (PCA) Northern Continental Divide Ecosystem (NCDE)*. U.S. Department of Agriculture

U.S. Department of Agriculture, Animal and Plant Health Inspection Service. (2001). *Future trends in agricultural trade* (Miscellaneous publication no. 1579).
U.S. Department of Agriculture, Forest Health Protection. (2004). *Western spruce budworm managment*. Missoula, MT: U.S. Department of Agriculture, Forest Health Protection and State Forestry Organizations
U.S. Department of Agriculture, Forest Service. (1981). *The northern regional plan*.
U.S. Department of Agriculture, Forest Service. (1986). *Helena National Forest plan*.
U.S. Department of Agriculture, Forest Service. (1994). *Lewis and Clark National Forest Noxious Weed Control Final Supplemental Environmental Impact Statement*. Great Falls, MT: U.S. Department of Agriculture, Forest Service
U.S. Department of Agriculture, Forest Service. (1995a). *Decision notice: Amendment to the Flathead National Forest land and resource management plan, Flathead National Forest, Montana: Amendment no. 19, allowable sale quantity and objectives and standards for grizzly bear habitat management*.
U.S. Department of Agriculture, Forest Service. (1995b). *Inland native fish strategy: Environmental assessment--Decision notice and finding of no significant impact*.
U.S. Department of Agriculture, Forest Service. (2006). *Gallatin National Forest travel management plan, final environmental impact statement, and record of decision*.
U.S. Department of Agriculture, Forest Service. (2007a). *Biological assessment (revised) of the northern Rockies lynx amendment on threatened, endangered and proposed vertebrate and invertebrate species (revision of BA dated November 18. 2005)*.
U.S. Department of Agriculture, Forest Service. (2007b). *Northern Rockies lynx management direction final environmental impact statement - summary*. Missoula, MT: U.S. Department of Agriculture, Forest Service, Region 1
U.S. Department of Agriculture, Forest Service. (2007c). *Northern Rockies lynx management direction final environmental impact statement, Volume 1*.
U.S. Department of Agriculture, Forest Service. (2007d). *Northern Rockies lynx management direction final environmental impact statement, Volume 2*.
U.S. Department of Agriculture, Forest Service. (2007e). *Northern Rockies lynx management direction record of decision*.
U.S. Department of Agriculture, Forest Service. (2007f). *Northern Rockies lynx management direction record of decision, national forests in Montana, and parts of Idaho, Wyoming, and Utah*.
U.S. Department of Agriculture, Forest Service. (2007g). *Northern Rockies lynx management direction: Final environmental impact statement (vols. 1 and 2)*.
U.S. Department of Agriculture, Forest Service. (2007h). *Record of Decision for Birch Creek South*. Great Falls, MT: U.S. Department of Agriculture
U.S. Department of Agriculture, Forest Service. (2009). *Record of Decision for Badger-Two Medicine*. Great Falls, MT: U.S. Department of Agriculture,, Forest Service
U.S. Department of Agriculture, Forest Service. (2011a). *Aquatics sensitive species list: Forest Service Region 1, February 2011*.
U.S. Department of Agriculture, Forest Service. (2011b). *Lewis and Clark National Forest Evaluation and Compliance with National Forest Management Act Requirements to Provide for Viability and Diversity of Animal Communities*.
U.S. Department of Agriculture, Forest Service. (2011c). *Watershed Condition Classification Technical Guide*. Washington, D.C.: U.S. Department of Agriculture
U.S. Department of Agriculture, Forest Service. (2011d). *Watershed condition framework: A framework for assessing and tracking changes to watershed condition* (FS-977).
U.S. Department of Agriculture, Forest Service. (2012a). *National best management practices for water quality management on National Forest system lands. Volume 1: National core BMP technical guide* (FS-990a).

U.S. Department of Agriculture, Forest Service. (2012b). National forest system land management planning Final rule and Record of Decision. *Federal Register, 77*(68), 21162-21276.
U.S. Department of Agriculture, Forest Service. (2013a). *Biological assessment for grizzly bears on the westside of the Helena National Forest*.
U.S. Department of Agriculture, Forest Service. (2013b). *Custer, Gallatin, Helena, and Lewis and Clark National Forests. Framework for project-level effects analysis on elk*.
U.S. Department of Agriculture, Forest Service. (2013c). *Forest Service national strategic framework for invasive species management*.
U.S. Department of Agriculture, Forest Service. (2013d). *NCDE grizzly bear conservation strategy-draft*.
U.S. Department of Agriculture, Forest Service. (2014a). *An assessment of fisher (Pekania pennanti) habitat in the U.S. Forest Service Northern Region*. Unpublished paper on file at USDA Forest Service Northern Region, Missoula, MT. Missoula, MT.
U.S. Department of Agriculture, Forest Service. (2014b). *Canada lynx (Lynx canadensis) habitat modelling for the Flathead National Forest land and resource management plan revision*.
U.S. Department of Agriculture, Forest Service. (2015). *FSH 1909.12 – Land management planning handbook: Chapter - Zero code*. (1909.12-2015-1). Washington, DC: U.S. Department of Agriculture, Forest Service
U.S. Department of Agriculture, Forest Service. (2017a). *Biological assessment for Canada lynx designated critical habitat: Northern Rockies lynx management direction*. Missoula, MT: U.S. Department of Agriculture, Forest Service, Northern Region
U.S. Department of Agriculture, Forest Service. (2017b). *Biological assessment for threatened, endangered, and proposed species forest plan amendments—Incorporating habitat management direction for the NCDE grizzly bear population into the Helena, Lewis and Clark, Kootenai, and Lolo National Forest Plans*. U.S. Department of Agriculture
U.S. Department of Agriculture, Forest Service. (2017c). *Record of decision: Blackfoot travel plan and programmatic forest plan amendment #33 for management area N1*.
U.S. Department of Agriculture, Forest Service. (2017d). *Soil Monitoring Reports 2012-2017 Helena-Lewis and Clark National Forest*.
U.S. Department of Agriculture, Forest Service. (2017e). *Volume 3—Final environmental impact statement for the forest plan amendments: Incorporating habitat management direction for the Northern Continental Divide Ecosystem grizzly bear population Helena-Lewis and Clark, Kootenai, and Lolo National Forests*. Helena, MT: U.S. Department of Agriculture, Forest Service, Northern Region
U.S. Department of Agriculture, Forest Service. (2018). *Record of decision for the forest plan amendments to incorporate habitat management direction for the Northern Continental Divide Ecosystem grizzly bear population Helena-Lewis and Clark National Forest, Kootenai National Forest, Lolo National Forest*. Helena, MT: U.S. Department of Agriculture, Forest Service, Northern Region
U.S. Department of Agriculture, Forest Service. (2019). *36 CFR Part 219, Planning*. Washington, DC: USDA Forest Service
U.S. Department of Agriculture, Forest Service. (2020a). *Canada Lynx (Lynx canadensis) Habitat Mapping for the Helena-Lewis and Clark National Forest 2018*. U.S. Department of Agriculture
U.S. Department of Agriculture, Forest Service. (2020b). *Pneumonia in Bighorn Sheep; Potential Causes and Carriers*.
U.S. Department of Agriculture, Forest Service, & Montana Fish Wildlife and Parks. (2013). *Collaborative overview and recommendations for elk habitat management on the Custer, Gallatin, Helena, and Lewis and Clark National Forests*.
U.S. Department of Agriculture, Forest Service, & U.S. Department of Interior, Bureau of Land Management. (1995). *Decision notice/decision record and finding of no significant impact for the interim strategies for managing anadromous fish-producing watersheds on federal lands in eastern Oregon and Washington, Idaho, and portions of California*.

U.S. Department of Agriculture, Forest Service, & U.S. Department of the Interior, Fish and Wildlife Service. (2005). *Canada lynx conservation agreement* (USFS Agreement #00-MU-11015600-013).
U.S. Department of Agriculture, Forest Service, & U.S. Department of the Interior, Fish and Wildlife Service. (2006). *Canada Lynx Conservation Agreement*. Washington, D.C.: U.S. Department of Agriculture, Forest Service
U.S. Department of Agriculture, Forest Service, & U.S. Department of the Interior, Fish and Wildlife Service. (2008). *Memorandum of understanding between the U.S. Department of Agriculture, Forest Service, and the U.S. Fish and Wildlife Service to promote the conservation of migratory birds (FS Agreement# 08-MU-1113-2400-264)*.
U.S. Department of Agriculture, Forest Service,. (1981). *Elkhorn Wilderness Study Helena and Deerlodge National Forests Montana*.
U.S. Department of Agriculture, Forest Service, Helena National Forest. (1986). *Record of decision for USDA Forest Service environmental impact statement Helena National Forest land and resource management plan Lewis and Clark, Jefferson, Powell, Broadwater and Meagher Counties, Montana*.
U.S. Department of Agriculture, Forest Service, Helena National Forest. (2006). *Final Environmental Impact Statement: Helena National Forest weed treatment project*.
U.S. Department of Agriculture, Forest Service, Lewis and Clark National Forest. (1986). *Lewis and Clark National Forest plan*.
U.S. Department of Agriculture, Forest Service, Northern Region. (1990). *The management of lodgepole pine in Region One. Committee report, September 1990*.
U.S. Department of Agriculture, Forest Service, Northern Region. (2015). *Assessment of the Helena and Lewis & Clark National Forests*.
U.S. Department of Agriculture, Forest Service, Northern Region, Snag Protocol Team. (2000). *Northern region snag management protocol*.
U.S. Department of Agriculture, Forest Service, Washington Office. (2001). *36 CFR Part 294 - Special areas, roadless area conservation; Final Rule*. Washington, DC: USDA Forest Service
U.S. Department of Agriculture, Natural Resources Conservation Service. (2018). *Field Indicators of Hydric Soils in the United States*.
U.S. Department of Agriculture, & U.S. Department of the Interior. (2011). *A national cohesive wildland fire management strategy*.
U.S. Department of the Interior, Fish and Wildlife Service. (1975a). Endangered and threatened wildlife; Ammendment listing the grizzly bear of the 48 conterminous states as a threatened species. *Federal Register, 40*(145), 31734-31736.
U.S. Department of the Interior, Fish and Wildlife Service. (1975b). Grizzly bear proposed "Threatened" status in the conterminous 48 states. *Federal Register, 40*(1).
U.S. Department of the Interior, Fish and Wildlife Service. (1993). *Grizzly bear recovery plan*.
U.S. Department of the Interior, Fish and Wildlife Service. (1999). Endangered and threatened wildlife and plants; Determination of threatened status for bull trout in the coterminous United States. Final Rule. *Federal Register, 64*(210), 58910-58933.
U.S. Department of the Interior, Fish and Wildlife Service. (2000a). Endangered and threatened wildlife and plants; determination of threatened status for the contiguous U.S. Distinct population segment of the Canada lynx and related rule. *Federal Register, 65*(58), 16052-16086.
U.S. Department of the Interior, Fish and Wildlife Service. (2000b). *Recovery outline: Contiguous United States distinct population segment of Canada lynx*.
U.S. Department of the Interior, Fish and Wildlife Service. (2003). Endangered and threatened wildlife and plants; notice of remanded determination of status for the contiguous United States distinct population segment of the Canada lynx; Clarification of findings; Final rule. *Federal Register, 68*, 40076-40101.

U.S. Department of the Interior, Fish and Wildlife Service. (2005). Endangered and threatened wildlife and plants; proposed designation of critical habitat for the contiguous United States distinct population segment of the Canada lynx. *Federal Register, 70*(216), 68294-68328.
U.S. Department of the Interior, Fish and Wildlife Service. (2006). Endangered and threatened wildlife and plants; Designation of critical habitat for the contiguous United States distinct population segment of the Canada lynx. *Federal Register, 71*(217), 66008-66061.
U.S. Department of the Interior, Fish and Wildlife Service. (2007). *Biological opinion on the effects of the Northern Rocky Mountains Lynx Amendment on the Distinct Population Segment (DPS) of Canada lynx (lynx) in the contiguous United States.*
U.S. Department of the Interior, Fish and Wildlife Service. (2009). Endangered and Threatened Wildlife and Plants; Final Rule To Identify the Northern Rocky Mountain Population of Gray Wolf as a Distinct Population Segment and To Revise the List of Endangered and Threatened Wildlife. *Federal Register, 74*(62), 15123-15188.
U.S. Department of the Interior, Fish and Wildlife Service. (2010). Endangered and threatened wildlife and plants; 90–day finding on a petition to list *Pinus albicaulis* (whitebark pine) as endangered or threatened with critical habitat. *Federal Register, 75*(138), 42033-42039.
U.S. Department of the Interior, Fish and Wildlife Service. (2011a). Endangered and threatened wildlife and plants; 12-month finding on a petition to list *Pinus albicaulis* as endangered or threatened with critical habitat. *Federal Register, 76*(138), 42631-42654.
U.S. Department of the Interior, Fish and Wildlife Service. (2011b). *Grizzly bear (Ursus arctos horribilis) 5-year review: Summary and evaluation*.
U.S. Department of the Interior, Fish and Wildlife Service. (2013a). Endangered and threatened wildlife and plants; Draft conservation strategy for the northern continental divide ecosystem grizzly bear. *Federal Register, 78*(86), 26064.
U.S. Department of the Interior, Fish and Wildlife Service. (2013b). Endangered and threatened wildlife and plants; Revised designation of critical habitat for the contiguous U.S. distinct population segment of the Canada lynx and revised distinct population segment boundary; Proposed rule. *Federal Register, 78*(187), 59430-59474.
U.S. Department of the Interior, Fish and Wildlife Service. (2013c). Endangered and threatened wildlife and plants; Threatened status for the distinct population segment of the North American wolverine occurring in the contiguous United States; Establishment of a nonessential experimental population of the North American wolverine in Colorado, Wyoming, and New Mexico; Proposed rules. *Federal Register, 78*(23), 7864-7890.
U.S. Department of the Interior, Fish and Wildlife Service. (2013d). *Northern Continental Divide Ecosystem grizzly bear conservation strategy draft*.
U.S. Department of the Interior, Fish and Wildlife Service. (2014a). Endangered and threatened wildlife and plants; Revised designation of critical habitat for the contiguous United States distinct population segment of the Canada Lynx and revised distinct population segment boundary; Final rule. *Federal Register, 79*(177), 54782-54846.
U.S. Department of the Interior, Fish and Wildlife Service. (2014b). *Programmatic biological assessment for activities that are not likely to adversely affect Canada lynx, grizzly bear, and designated Canada lynx critical habitat*. Helena, MT: U.S. Department of the Interior, Fish and Wildlife Service
U.S. Department of the Interior, Fish and Wildlife Service. (2015a). *Columbia Headwaters recovery unit implementation plan for bull trout (Salvelinus confluentus)*.
U.S. Department of the Interior, Fish and Wildlife Service. (2015b). *Recovery plan for the coterminous United States population of bull trout (Salvelinus confluentus)*.
U.S. Department of the Interior, Fish and Wildlife Service. (2016a). *Biological opinion on the Effects of the Blackfoot Non-Winter Travel Plan on Grizzly Bears*.

U.S. Department of the Interior, Fish and Wildlife Service. (2016b). Endangered and Threatened Wildlife and Plants; Proposed Rule for the North American Wolverine. *Federal Register, 81*(201), 71670-71671.

U.S. Department of the Interior, Fish and Wildlife Service. (2017a). *Biological Opinion on the Effects of Incorporating Habitat Management Direction for the NCDE Grizzly Bear Population into the Helena, Lewis and Clark, Kootenai, and Lolo National Forest Plans on Grizzly Bears*.

U.S. Department of the Interior, Fish and Wildlife Service. (2017b). *Endangered Species Act Section 7 consultation biological opinion on the effects of incorporating habitat management direction for the NCDE grizzly bear population into the Helena, Lewis and Clark, Kootenai, and Lolo National Forest plans on grizzly bears*. Helena, MT: U.S. Fish and Wildlife Service Montana Ecological Services Office

U.S. Department of the Interior, Fish and Wildlife Service. (2017c). *Northern Rockies Lynx Management Direction*. (06E11000-2017-F-0198 NRLMD 2017 amended incidental take statement). Helena, MT: U.S. Department of the Interior, Fish and Wildlife Service, Ecological Services, Montana Field Office

U.S. Department of the Interior, Fish and Wildlife Service (2017). *Biological opinion on the effects of the northern rockies lynx management direction on designated critical habitat and Canada lynx*. (06E11000-2017-F-0552 NRLMD - Lynx critical habitat). Missoula, MT: U.S. Department of Agriculture, Forest Service, Northern Region

U.S. Department of the Interior, Fish and Wildlife Service,, & Office, M. F. (2007). *Threatened, endangered and candidate species*.

U.S. Department of the Interior, Fish and Wildlife Service,, & U.S. Department of Commerce, U.S. Census Bureau. (2014). *2011 national survey of fishing, hunting, and wildlife-associated recreation (revised February 2014)*.

U.S. Department of the Interior, Geological Survey. (2017). Rocky Mountain Regional Snowpack Chemistry Monitoring Study. Retrieved February 20, 2015 November 8, 2017

U.S. Environmental Protection Agency. (2003). *Particle Pollution and Your Health*.

U.S. Environmental Protection Agency. (2014). *Climate change indicators in the United States, 2014, third edition*. (430-R-14-004). Washington, DC: U.S. Environmental Protection Agency

Unsworth, J. W., & Kuck, L. (1991, 10-12 April). *Bull elk vulnerability in the Clearwater drainage of north-central Idaho.* Paper presented at the Elk Vulnerability Symposium, Bozeman, MT.

Urza, A. K., Sibold, J. S., & Gilliam, F. (2016). Climate and seed availability initiate alternate post-fire trajectories in a lower subalpine forest. *Journal of Vegetation Science, 28*(1), 43-56. doi:10.1111/jvs.12465

van Mantgem, P. J., Falk, D. A., Williams, E. C., Das, A. J., & Stephenson, N. L. (2018). Pre-fire drought and competition mediate post-fire conifer mortality in western U.S. National Parks. *Ecological Applications, 0*(0), 1-10.

van Mantgem, P. J., Nesmith, J. C. B., Keifer, M., Knapp, E. E., Flint, A., & Flint, L. (2013). Climatic stress increases forest fire severity across the western United States. *Ecology Letters, 16*, 1151-1156.

Van Wagtendonk, J. W. (2004). Fire and landscapes: Patterns and processes. In D. D. Murphy & P. A. Stine (Eds.), *Proceedings of the Sierra Nevada Science Symposium* (pp. 69-78). Albany, CA: ISDA Forest Service, Pacific Southwest Research Station.

Visser, R., & Stampfer, K. (2015). Expanding Ground-based Harvesting onto Steep Terrain: A Review. *Croatian Journal of Forest Engineering, 36*, 321-331.

Vose, J. M., Clark, J. S., Luce, C. H., & Patel-Weynand, T. (2016). *Effects of drought on forests and rangelands in the United States: A comprehensive science synthesis* (WO-93b).

Vose, J. M., Peterson, D. L., & Patel-Weynand, T. (2012). *Effects of climatic variability and change on forest ecosystems: A comprehensive science synthesis for the U.S. forest sector* (PNW-GTR-870).

Wakkinen, W. L., & Kasworm, W. F. (1997). *Grizzly bear and road density relationships in the Selkirk and Cabinet-Yaak recovery zones*. Bonners Ferry, ID: Idaho Department of Fish and Game

Walthall, C. L., Hatfield, J., Backlund, P., Lengnick, L., Marshall, E., Waslh, M., . . . Ziska, L. H. (2012). *Climate change and agriculture in the United States: Effects and adaptation*.

Ward Thomas, J., Black, H., Jr., Scherzinger, R. J., & Pedersen, R. J. (1979). Deer and elk. In J. W. Thomas (Ed.), *Wildlife habitats in managed forests: The Blue Mountains of Oregon and Washington. USDA Forest Service Agriculture Handbook No. 533* (pp. 104-127). Washington, D.C.: Government Printing Office.

Warren, N. M. (Ed.) (1990). *Old-growth habitats and associated wildlife species in the Northern Rocky Mountains*: U.S. Department of Agriculture, U.S. Forest Service.

Wear, D. N., Huggett, R., Li, R., Perryman, B., & Liu, S. (2013). *Forecasts of forest conditions in U.S. regions under future scenarios: A technical document supporting the Forest Service 2010 RPA assessment*. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station

Wehausen, J. D., Kelley, S. T., & Ramey, R. R., II. (2011). Domestic sheep, bighorn sheep, and respiratory disease: a review of the experimental evidence. *California Fish and Game, 97*(1), 7-24.

Welch, B. L. (2005). *Bird counts in stands of big sagebrush and greasewood* (RMRS-RN-28).

Westerling, A. L., Hidalgo, H. G., Cayan, D. R., & Swetnam, T. W. (2006). Warming and earlier spring increase western U.S. forest wildfire activity. *Science, 313*(5789), 940-943. doi:http://dx.doi.org/10.1126/science.1128834

Western Association of Fish and Wildlife Agencies (WAFWA), Wild Sheep Working Group. (2012). *Recommendations for domestic sheep and goat management in wild sheep habitat*.

Whitlock, C., & Bartlein, P. J. (1993). Spatial variations of Holocene climatic change in the Yellowstone region. *Quaternary Research, 39*, 231-238.

Whitlock, C., Marlon, J., Briles, C., Brunelle, A., Long, C., & Bartlein, P. (2008). Long-term relations among fire, fuel, and climate in the northwestern U.S. based on lake-sediment studies. *International Journal of Wildland Fire, 17*(1), 72-83. doi:http://dx.doi.org/10.1071/Wf07025

Wiedinmyer, C., & Hurteau, M. D. (2010). Prescribed fire as a means of reducing forest carbon emissions in the western United States. *Environmental Science and Technology, 44*, 1926-1932.

Wilderness Act - Public Law 88-577 (16 U.S. C. 1131-1136), (1964).

Williams, M. I., & Dumroese, R. K. (2016). Chapter 8: Planning the future's forests with assisted migration. In *Forest conservation in the anthropocene: Science, policy, and practice* (pp. 113-123). Boulder, CO: University Press of Colorado.

Wisdom, M. J., & Bate, L. J. (2008). Snag density varies with intensity of timber harvest and human access. *Forest Ecology and Management, 255*(7), 2085-2093. doi:http://dx.doi.org/10.1016/j.foreco.2007.12.027

Wisdom, M. J., Johnson, B. K., Vavra, M., Boyd, J. M., Coe, P. K., Kie, J. G., . . . Cimon, N. J. (2005). Cattle and elk responses to intensive timber harvest. In M. J. Wisdom (Ed.), *The Starkey project: A synthesis of long-term studies of elk and mule deer* (pp. 197-216). Lawrence, Kansas: Alliance Communications Group.

Wondzell, S. M. (2001). The influence of forest health and protection treatments on erosion and stream sedimentation in forested watersheds of eastern Oregon and Washington. *Northwest Science, 75*, 128-140.

Wong, C. M., & Daniels, L. D. (2016). Novel forest decline triggered by multiple interactions among climate, an introduced pathogen and bark beetles. *Global Change Biology*. doi:http://dx.doi.org/10.1111/gcb.13554

Wood, F. L., Heathwaite, A. L., & Haygarth, P. M. (2005). Evaluating diffuse and point phosphorus contributions to river transfers at different scales in the Taw catchment, Devon, UK. *Journal of Hydrology, 304*(1-4), 118-138. doi:http://dx.doi.org/10.1016/j.jhydrol.2004.07.026

Wurtzebach, Z., & Schultz, C. (2016). Measuring ecological integrity: History, practical applications, and research opportunities. *BioScience, 66*(6), 446-457. doi:10.1093/biosci/biw037

Young, M. K., Isaak, D. J., McKelvey, K. S., Schwartz, M. K., Carim, K. J., Fredenberg, W., . . . Wollrab, S. P. (2017). *Species occurrence data from the Range-Wide Bull Trout eDNA Project*. Fort Collins, CO: U.S. Department of Agriculture, Forest Service Research Data Archive

Youngblood, A., Metlen, K. L., & Coe, K. (2006). Changes in stand structure and composition after restoration treatments in low elevation dry forests of northeastern Oregon. *Forest Ecology and Management, 234*, 143-163. doi:http://dx.doi.org/10.1016/j.foreco.2006.06.033

Yount, J. D., & Niemi, G. J. (1990). Recovery of lotic communities and ecosystems from disturbance a narrative review of case studies. *Environmental Management, 14*(5), 547-569. doi:http://dx.doi.org/10.1007/Bf02394709

Zager, P., Jonkel, C., & Habeck, J. (1983). Logging and wildfire influence on grizzly bear habitat in northwestern Montana. *Bears: Their biology and management, 5*, 124-132. doi:http://dx.doi.org/10.2307/3872529

Zhang, J. W., Ritchie, M. W., & Oliver, W. W. (2008). Vegetation responses to stand structure and prescribed fire in an interior ponderosa pine ecosystem. *Canadian Journal of Forest Research-Revue Canadienne De Recherche Forestiere, 38*(5), 909-918. doi:http://dx.doi.org/10.1139/X07-230

Ziesak, R. (2018). *Montana forestry best management practices monitoring: 2018 Forestry BMP field review report*.

Ziska, L. H., & R., T. J. (2000). Sustained growth and increased tolerance to glyphosate observed in a C3 perennial weed, quackgrass (Elytrigia repens), grown at elevated carbon dioxide. *Australian Jounral of Plant Physiology, 27*, 159-166.

Zlatnik, E. (1999). *Pseudoroegneria spicata*. *Fire Effects Information System.*

Zouhar, K., Kapler Smith, J., Sutherland, S., & Brooks, M. L. (2008). *Wildland fire in ecosystems: Fire and nonnative invasive plants*. (General Technical Report RMRS-GTR-42, Volume 6). Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station

Page intentionally left blank.