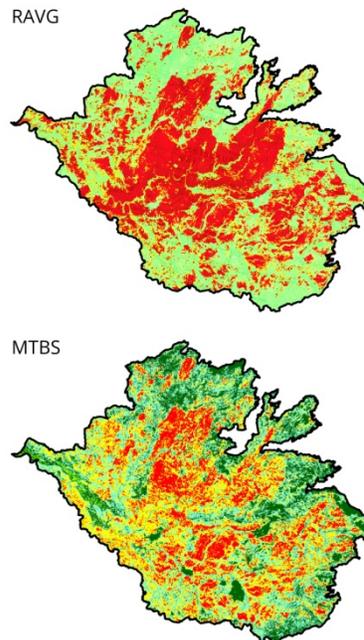




Rim Fire Facts

Using fire intensity data provided by the U.S. Geological Survey (www.mtbs.gov), vegetation data provided by the state of California (www.dfg.ca.gov/biogeodata/cwhr/), and pre-fire forest management data provided by the U.S. Forest Service, the following were found:

- Out of a total of 257,171 acres within the perimeter of the 2013 Rim fire, 151,258 acres (59%) were in conifer forest. Within conifer forest (all land ownerships), high-intensity fire comprises 20% of fire effects, and the largest high-intensity fire patches are about 1,000 to 3,000 acres in size, which is well within the natural range of variability (USFS 1911, Beaty and Taylor 2001, Bekker and Taylor 2001, Hanson 2007, Baker 2014, Hanson and Odion in press). Though the U.S. Forest Service’s preliminary assessment (“RAVG”) reported high-intensity fire levels of 40%, and much larger high-intensity fire patches, this was prior to “flushing” of ponderosa pines (pines that appeared dead, and had no remaining green needles after the fire, producing new green needles and surviving in the spring after the fire—see Hanson and North 2009) in 2014. The final fire intensity data from the U.S. Geological Survey and the U.S. Forest Service jointly (“MTBS”), shows that the Forest Service’s preliminary assessment dramatically exaggerated high-intensity fire proportions and patch sizes (see figure below).



The Forest Service’s exaggerated preliminary fire intensity assessment (RAVG), which inaccurately claimed 40% high-intensity fire, versus the final data (MTBS) jointly produced by U.S. Geological Survey and the Forest Service, which found only 20% high-intensity fire, and much smaller high-intensity fire patches.

- The most intensively managed forests with the least environmental protections from logging had the highest levels of high-intensity fire, with the largest proportions on private industrial timberlands, the next most on National Forest lands, and the least on Yosemite National Park. Conifer forests that were mechanically thinned 1995-2013 on national forest lands, and which had also not experienced fire in over 25 years, had higher levels of high-intensity fire than unthinned forests.
- The most long-unburned forests had slightly *lower* levels of high-intensity fire than forests that burned recently prior to the Rim fire (1987 through 2012) on federal lands, contrary to U.S. Forest Service claims in the media.
- Forest Service scientists recently concluded that, based upon fire intensity data from 1984-2009, there is too little high-intensity fire on national forests in mixed-conifer/ponderosa-pine forests, and red fir forests, of the western Sierra Nevada, based upon high-intensity fire rotation intervals of 859 years or more, which they found were unnaturally long (Miller et al. 2012b, Table 3). The authors concluded that in these forests, and in most other forests of the Sierra Nevada, “high-severity rotations may be too long in most Cascade-Modoc and westside FS [Forest Service] locations...” (Miller et al. 2012b, p. 15). When the most recent 4 years of data (2010 through 2013), including the Rim fire, are added, the high-intensity fire rotation interval for this longer time period (30 years) is approximately 805 years in mixed-conifer/ponderosa pine forests on national forests of the western Sierra Nevada. Historically, before fire suppression, natural high-intensity fire rotation intervals in these forests generally ranged from 200 to 400 years (Bekker and Taylor 2001, Hanson 2007, Stephens et al. 2007, Odion and Hanson 2013, Baker 2014, Hanson and Odion in press).
- High-intensity fire patches—especially larger patches—create “snag forest habitat”, which has levels of native biodiversity and total wildlife abundance comparable to, or higher than, unburned old forest (Raphael et al. 1987, Donato et al. 2009, Burnett et al. 2010, Swanson et al. 2011). Snag forest habitat is three times rarer than old-growth forest and is the most threatened (by post-fire logging, pre-fire thinning, and fire suppression) and least protected forest habitat type in the Sierra Nevada, and has declined by more than fourfold in the past century due to fire suppression (Odion and Hanson 2013, Hanson and Odion 2014, Baker 2014, Hanson and Odion in press).
- Contrary to U.S. Forest Service claims, there is currently abundant natural conifer (especially pine) and oak regeneration in the large high-intensity fire patches of the Rim fire—even deep into the interior of the largest patches. These forests are not in need of “restoration”—the fire itself restored ecologically vital habitat and natural heterogeneity to the landscape. Post-fire logging, shrub removal, and artificial tree plantation establishment destroys the highly biodiverse and rare “complex early seral forest” (DellaSala et al. 2014) that was created by the fire, and further harms declining bird species dependent upon this habitat (Hanson 2014).



Natural post-fire conifer regeneration, generally ranging from several dozen to several hundred per acre, currently growing and thriving deep in the interior of the largest high-intensity fire patches in the Rim fire.



The ecological devastation caused by post-fire logging on National Forest lands in the Rim fire.