Biscuit 2002 Fire

- lightning ignited mid-July
- contained 5 Sept.
- controlled 9 Nov.
- ~ 500,000 acres
#1. Did previous (conventional) logging decrease fire severity? **NO**...why?

#2. Did previous fire decrease Biscuit fire severity? **YES**...why?

Table 1. Percent of burned area by plant series

<table>
<thead>
<tr>
<th>Series</th>
<th>Percent of burned area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas-fir</td>
<td>~30</td>
</tr>
<tr>
<td>Firs</td>
<td>~30</td>
</tr>
<tr>
<td>Jeffrey Pine</td>
<td>~30</td>
</tr>
<tr>
<td>White firs</td>
<td>~15</td>
</tr>
</tbody>
</table>

Severity inversely related to average tree size

http://www.pacificbio.org/Projects/Fires/reports/VegetationMortalityAnalysis-screenres.pdf

Analysis of Vegetation Mortality and Prior Landscape Condition, 2002 Biscuit Fire Complex
Pacific Biodiversity Institute
February 14, 2003
#3. Did salvage logging on old fires decrease severity of Biscuit fire?

NO; severity was higher in salvaged units!...Why (activity fuels)

Quote of the day:

"...there is little reason to believe that post-fire salvage logging has any positive ecological benefits...there is considerable evidence that persistent, significant adverse environmental impacts are likely to result from salvage logging."

Beschta et al. 1995


Biscuit Lessons:

- Fire suppression leads to big, intense fires (duh).
- Fires burn very heterogeneously (duh), due to:
  - Proximity to perimeter (& suppression activities)
  - Season (cooler fires late in season)
  - Topographic & longitudinal variation in climate (mesic river corridors & western regions)
  - Previous fire, logging, and salvage activities.
    - Previous fires diminish future fire severity!
    - Previous logging appears to have little effect on fire severity! (if any effect, perhaps increasing severity!)
    - Previous salvage logging appears to, paradoxically, elevate future fire severity!