

# (Pre)Historic Variability in Landscape Indices - The Oregon Coast Range

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Creation Rate

Destruction Rate

Amount of Habitat

Patch Size Distribution

Cumulative Colonization Index

Patch Cohesion

Correlation Matrix

Open

Small & Very Small Conifer

Medium Conifer

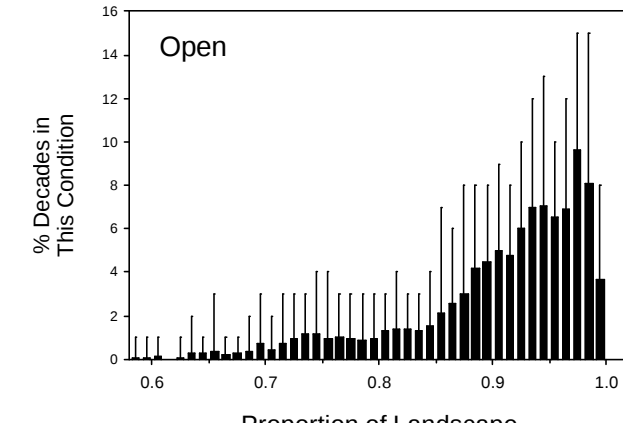
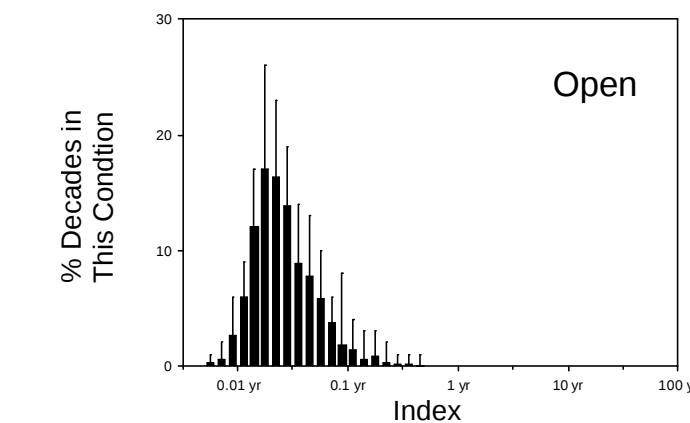
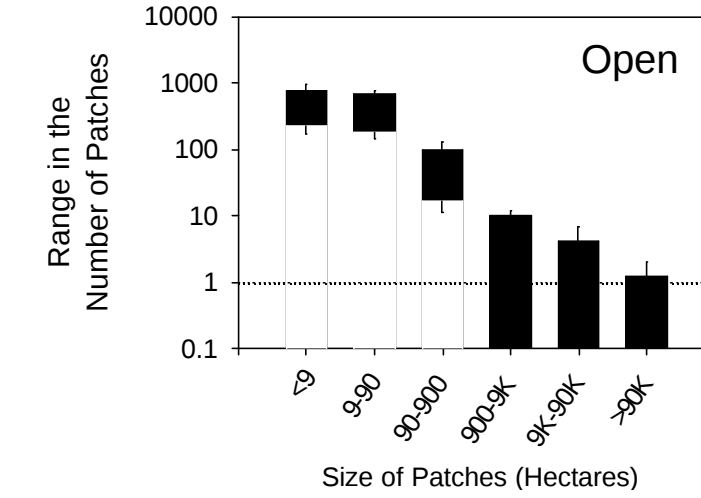
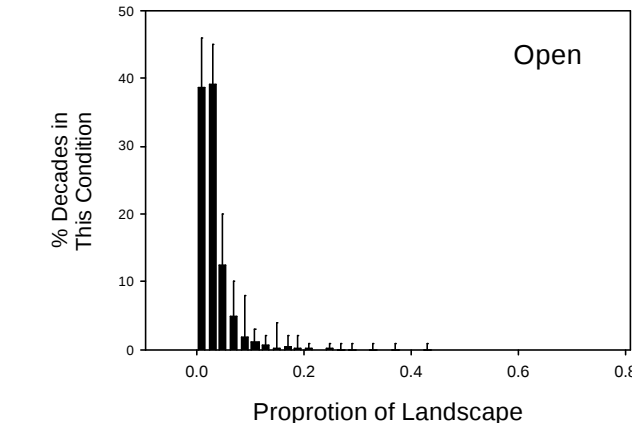
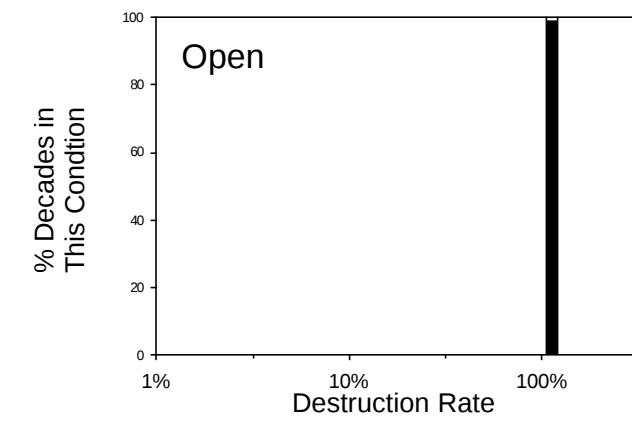
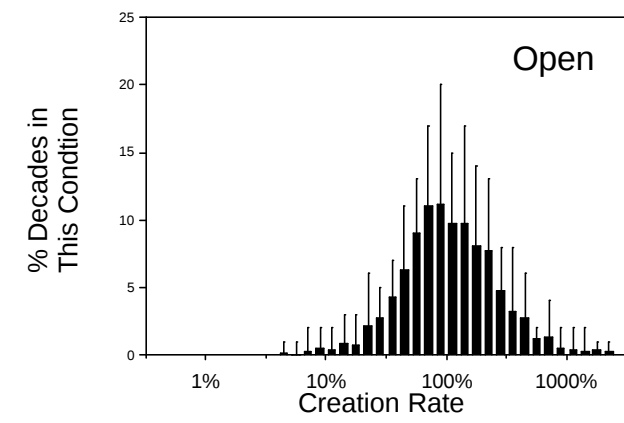
Large Conifer

Very Large Conifer

Extremely Large Conifer

Low Contrast Edge

High Contrast Edge

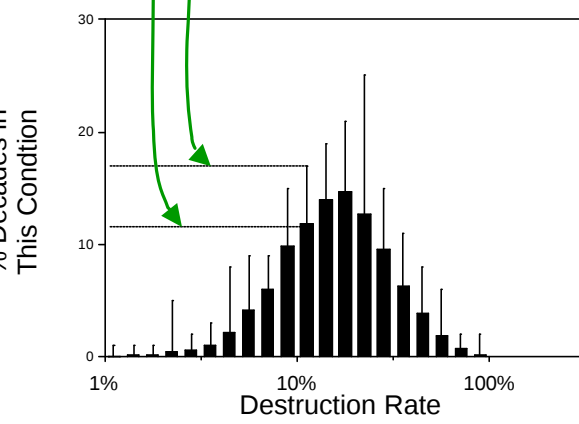


|                         |                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------|
| Creation Rate           | %                                                                                           |
| Destruction Rate        | %                                                                                           |
| Amount of Habitat       | <b>0.80</b>                                                                                 |
| Patches (0-9 ha)        | -0.02 -0.05 %                                                                               |
| Patches (10-90 ha)      | 0.01 -0.01 <b>0.90</b> %                                                                    |
| Patches (91-900 ha)     | 0.01 0.01 <b>0.54</b> <b>0.71</b> %                                                         |
| Patches (901-9000 ha)   | 0.00 <b>0.08</b> <b>0.17</b> <b>0.25</b> <b>0.38</b> %                                      |
| Patches (9001-90000 ha) | <b>0.18</b> <b>0.28</b> -0.02 0.02 0.03 -0.01 %                                             |
| Patches (90001+ ha)     | <b>0.58</b> <b>0.71</b> -0.12 -0.11 -0.11 -0.01 -0.06 %                                     |
| Cum. Coloniz. Index     | <b>0.80</b> 1 -0.05 -0.01 0.01 <b>0.08</b> <b>0.28</b> <b>0.71</b> %                        |
| Patch Cohesion          | <b>0.35</b> <b>0.50</b> -0.16 -0.12 -0.06 <b>0.13</b> <b>0.60</b> <b>0.41</b> <b>0.50</b> % |

How to Interpret the Graphs

Bars indicate the expected historical variability:  
Here, the expectation for a 10% destruction rate is that it occurred 12% of the time during the past 1000 yr.

Error bars indicate the uncertainty due to randomness in the fire regime:  
Here, the most extreme value observed in 20 independent runs was 17%.

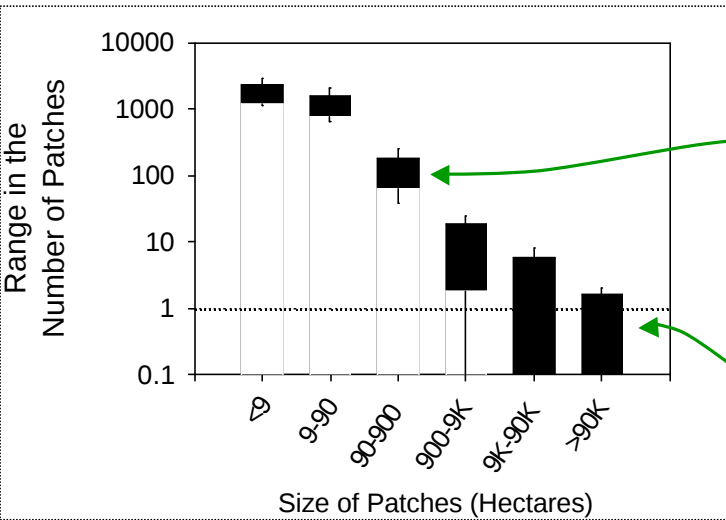


|                         |                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------|
| Creation Rate           | %                                                                                           |
| Destruction Rate        | 0.03 %                                                                                      |
| Amount of Habitat       | <b>0.35</b> -0.40 %                                                                         |
| Patches (0-9 ha)        | -0.04 -0.03 -0.12 %                                                                         |
| Patches (10-90 ha)      | -0.02 -0.06 -0.04 <b>0.87</b> %                                                             |
| Patches (91-900 ha)     | -0.02 -0.06 0.00 <b>0.49</b> <b>0.70</b> %                                                  |
| Patches (901-9000 ha)   | -0.02 0.00 -0.02 <b>0.19</b> <b>0.28</b> <b>0.37</b> %                                      |
| Patches (9001-90000 ha) | 0.00 -0.17 0.20 -0.04 0.02 0.06 -0.01 %                                                     |
| Patches (90001+ ha)     | <b>0.24</b> -0.30 <b>0.71</b> -0.18 -0.16 -0.14 -0.14 -0.14 %                               |
| Cum. Coloniz. Index     | <b>0.02</b> -0.48 <b>0.91</b> -0.11 -0.04 0.00 -0.03 <b>0.18</b> <b>0.65</b> %              |
| Patch Cohesion          | <b>0.19</b> -0.36 <b>0.65</b> -0.23 -0.20 -0.14 -0.07 <b>0.44</b> <b>0.49</b> <b>0.60</b> % |

|                         |                                                                                             |
|-------------------------|---------------------------------------------------------------------------------------------|
| Creation Rate           | %                                                                                           |
| Destruction Rate        | 0.02 %                                                                                      |
| Amount of Habitat       | <b>0.21</b> -0.37 %                                                                         |
| Patches (0-9 ha)        | -0.01 0.02 -0.23 %                                                                          |
| Patches (10-90 ha)      | 0.01 -0.01 -0.10 <b>0.84</b> %                                                              |
| Patches (91-900 ha)     | 0.01 -0.03 0.02 <b>0.47</b> <b>0.72</b> %                                                   |
| Patches (901-9000 ha)   | -0.03 <b>0.06</b> -0.11 <b>0.16</b> <b>0.29</b> <b>0.39</b> %                               |
| Patches (9001-90000 ha) | -0.03 <b>0.07</b> <b>0.11</b> -0.03 <b>0.06</b> <b>0.11</b> -0.01 %                         |
| Patches (90001+ ha)     | <b>0.16</b> -0.26 <b>0.70</b> -0.24 -0.20 -0.13 -0.19 -0.20 %                               |
| Cum. Coloniz. Index     | -0.11 -0.39 <b>0.89</b> -0.22 -0.11 0.00 -0.10 <b>0.10</b> <b>0.61</b> %                    |
| Patch Cohesion          | <b>0.14</b> -0.34 <b>0.71</b> -0.29 -0.22 -0.14 -0.18 <b>0.27</b> <b>0.58</b> <b>0.63</b> % |

|                         |                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------|
| Creation Rate           | %                                                                                                             |
| Destruction Rate        | -0.01 %                                                                                                       |
| Amount of Habitat       | <b>0.28</b> -0.39 %                                                                                           |
| Patches (0-9 ha)        | <b>0.07</b> -0.12 <b>0.12</b> %                                                                               |
| Patches (10-90 ha)      | <b>0.10</b> -0.15 <b>0.27</b> <b>0.87</b> %                                                                   |
| Patches (91-900 ha)     | <b>0.10</b> -0.15 <b>0.34</b> <b>0.53</b> <b>0.70</b> %                                                       |
| Patches (901-9000 ha)   | 0.00 -0.02 <b>0.09</b> <b>0.13</b> <b>0.27</b> <b>0.39</b> %                                                  |
| Patches (9001-90000 ha) | -0.01 -0.19 <b>0.25</b> 0.03 <b>0.15</b> <b>0.19</b> 0.02 %                                                   |
| Patches (90001+ ha)     | <b>0.21</b> -0.27 <b>0.71</b> 0.00 <b>0.07</b> <b>0.12</b> -0.01 -0.13 %                                      |
| Cum. Coloniz. Index     | -0.03 -0.42 <b>0.90</b> <b>0.09</b> <b>0.22</b> <b>0.28</b> <b>0.07</b> <b>0.23</b> <b>0.63</b> %             |
| Patch Cohesion          | <b>0.14</b> -0.36 <b>0.65</b> -0.02 <b>0.10</b> <b>0.17</b> <b>0.06</b> <b>0.48</b> <b>0.45</b> <b>0.59</b> % |

|                         |                                                                                       |
|-------------------------|---------------------------------------------------------------------------------------|
| Creation Rate           | %                                                                                     |
| Destruction Rate        | 0.02 %                                                                                |
| Amount of Habitat       | 0.02 -0.39 %                                                                          |
| Patches (0-9 ha)        | -0.02 <b>0.38</b> -0.98 %                                                             |
| Patches (10-90 ha)      | -0.01 <b>0.35</b> -0.94 <b>0.97</b> %                                                 |
| Patches (91-900 ha)     | 0.02 <b>0.28</b> -0.82 <b>0.83</b> <b>0.82</b> %                                      |
| Patches (901-9000 ha)   | 0.03 <b>0.14</b> -0.48 <b>0.46</b> <b>0.56</b> <b>0.67</b> %                          |
| Patches (9001-90000 ha) | -0.03 <b>0.09</b> -0.36 <b>0.34</b> <b>0.33</b> <b>0.34</b> <b>0.22</b> %             |
| Patches (90001+ ha)     | -0.01 <b>0.16</b> -0.42 <b>0.41</b> <b>0.38</b> <b>0.33</b> <b>0.15</b> <b>0.14</b> % |
| Cum. Coloniz. Index     | -0.15 -0.26 <b>0.65</b> -0.63 -0.63 -0.59 -0.39 -0.20 -0.29 %                         |
| Patch Cohesion          | 0.02 -0.35 <b>0.87</b> -0.88 -0.87 -0.81 -0.48 -0.37 -0.60 <b>0.58</b> %              |



The number of patches in the 90 - 900 ha size class ranged from 63 to 184 during the past 1000 yr.

The number of patches in the largest size class ranged from 0 to 3 during the past 1000 yr.

