

Land Change Intensity Analysis for H.J. Andrews, Oregon

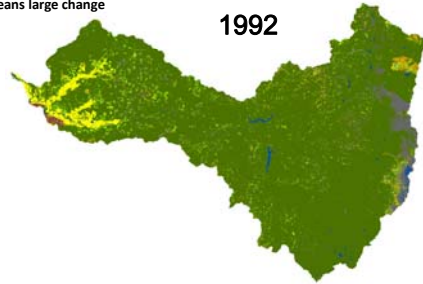


Kangping Si, Myrica McCune,
Robert Gilmore Pontius, Jr, Hannah Gosnell



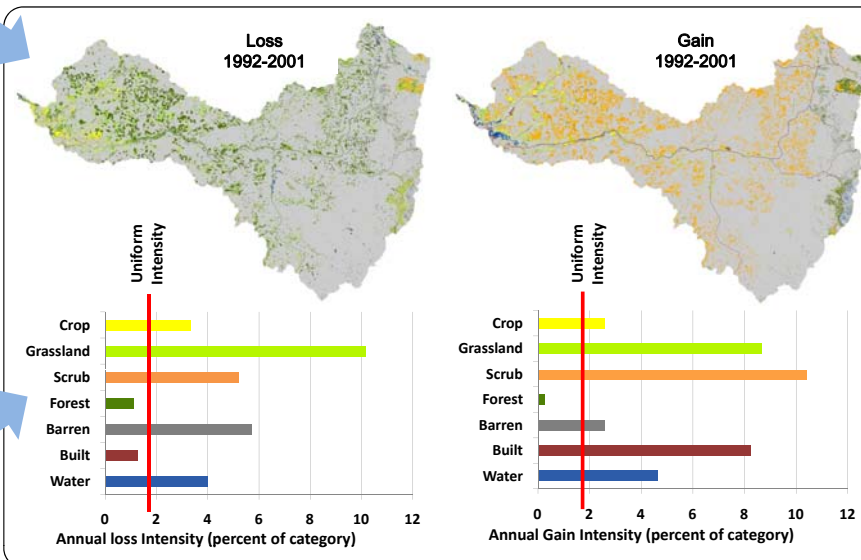
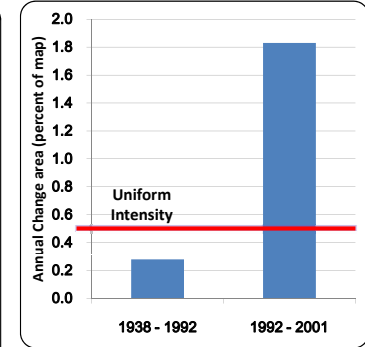
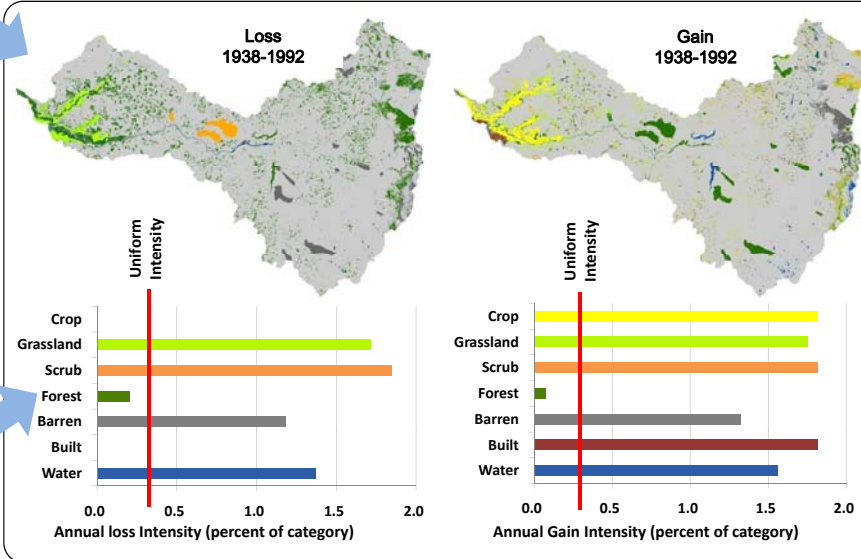
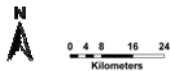
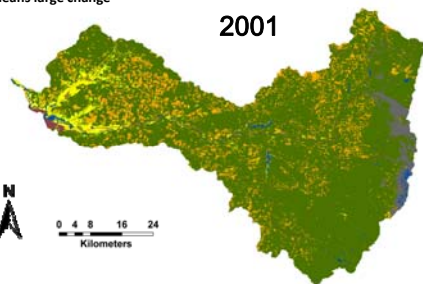
	1992	1992	1992	1992	1992	1992	1992	Total	Gross	
	Water	Built	Barren	Forest	Scrub	Grassland	Crop	1938	Loss	
1938	Water	0	0	0	0	0	0	1	0	
1938	Built	0	0	0	0	0	0	0	0	
1938	Barren	0	0	1	2	0	0	4	2	
1938	Forest	1	0	4	83	1	3	93	10	
1938	Scrub	0	0	0	1	0	0	1	1	
1938	Grassland	0	0	0	0	0	0	1	2	
1938	Crop	0	0	0	0	0	0	0	0	
Total 1992		1	0	5	86	1	4	2	100	15
Gross Gain		1	0	4	3	1	4	2		15

Numbers are percentage of the landscape
○ means large change



	2001	2001	2001	2001	2001	2001	2001	Total	Gross
	Water	Built	Barren	Forest	Scrub	Grassland	Crop	1992	Loss
1992	Water	1	0	0	0	0	0	1	0
1992	Built	0	0	0	0	0	0	0	0
1992	Barren	0	0	2	1	2	0	5	3
1992	Forest	0	1	0	77	1	0	86	9
1992	Scrub	0	0	0	1	1	0	1	1
1992	Grassland	0	0	0	1	3	0	4	3
1992	Crop	0	0	0	0	0	2	2	1
Total 2001		1	1	3	79	12	1	100	16
Gross Gain		0	1	1	2	11	1		16

Numbers are percentage of the landscape
○ means large change



Summary
We examined changes among seven categories for 1938–1992 and 1992–2001 in the H.J. Andrews experimental forest. Results show that the annual rate of change was slower in 1938–1992 than in 1992–2001. There are large transitions from forest to scrub in both time intervals for two reasons: First, forest dominates the landscape, accounting for 93% of the landscape in 1938 and 79% in 2001. Second, scrub demonstrates both gross gains intensively relative to its size.

Acknowledgements
The United States' National Science Foundation (NSF) supports this work via a supplement grant through the NSF's Long Term Ecological Research (LTER) network, Award #DEB-0620579. Several LTER sites are participating in this grant titled "Maps and Locals (MALS)" with principal investigators Gary Kofinas, Nathan Sayre, and Robert Gilmore Pontius Jr. Safaa Aldwaik wrote computer program for the analysis.

Contact:
Robert Gilmore Pontius Jr: rpointius@clarku.edu
Kangping Si: KSi@clarku.edu

