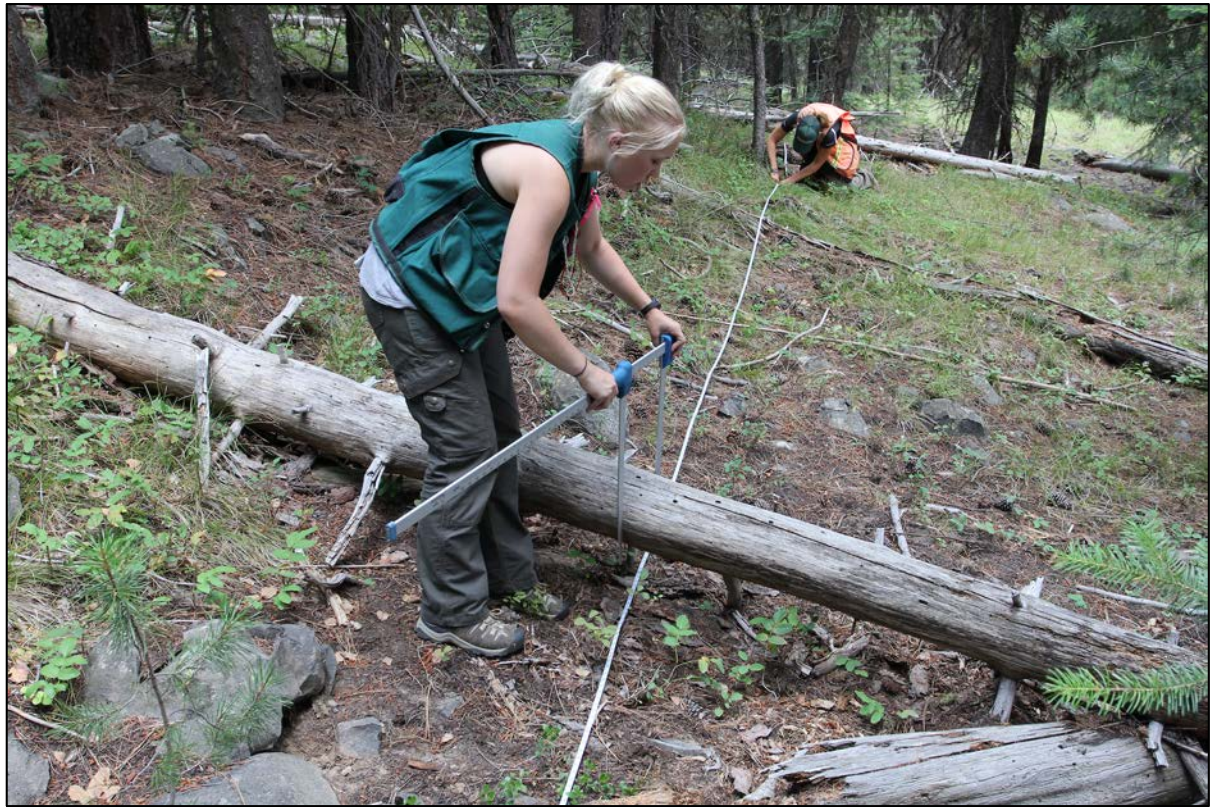
Monitoring upland silvicultural treatments in the southern Blues CFLRP area

James Johnston
BMFP | Oct. 17, 2019

Two types of monitoring

Observational (field trips)

Data-driven



Two forest types

Dry pine

Mixed conifer

Lessons learned from observational monitoring

Dry pine:

Basal area targets of approximately 30-60 square feet per acre are appropriate in forested areas.

Create small patches and openings… meet basal area targets at unit scale, not acre scale.

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Remove trees from areas that were historically tree-less.

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Lessons learned from observational monitoring

Mixed conifer:

Basal area targets of approximately 40-70 square feet per acre are appropriate in forested areas.

Meet basal area targets at unit scale, not acre scale.

Remove more shade tolerant species (grand fir).

Lessons learned from observational monitoring

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Aggressively restore aspen.

Lessons learned from observational monitoring

All forest types:

Burn more.

Lessons learned from data-driven monitoring: Fine fuels matter

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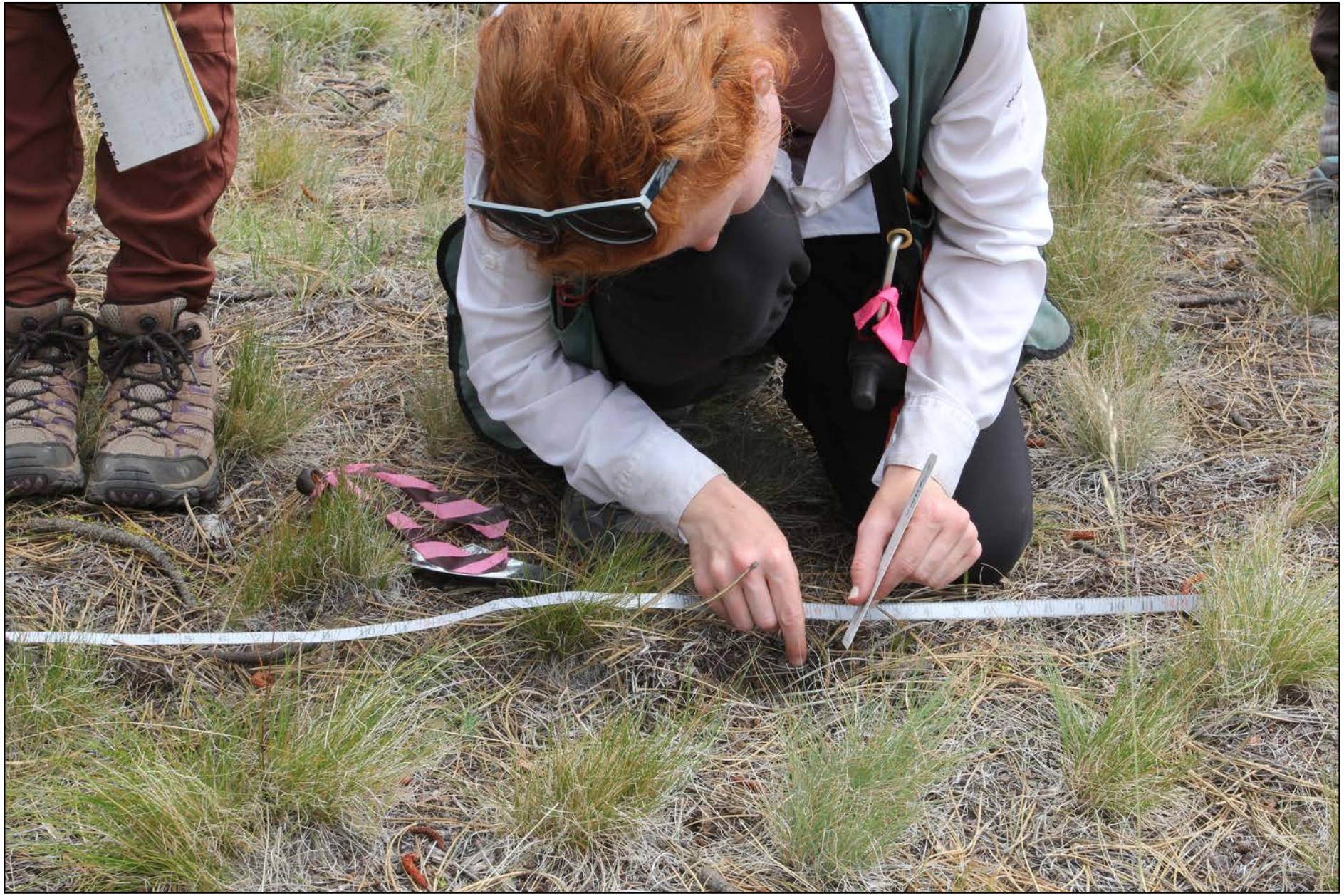

Lessons learned from data-driven monitoring: Fine fuels matter

2014

Lessons learned from data-driven monitoring: Fine fuels matter

2019

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2014

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2019

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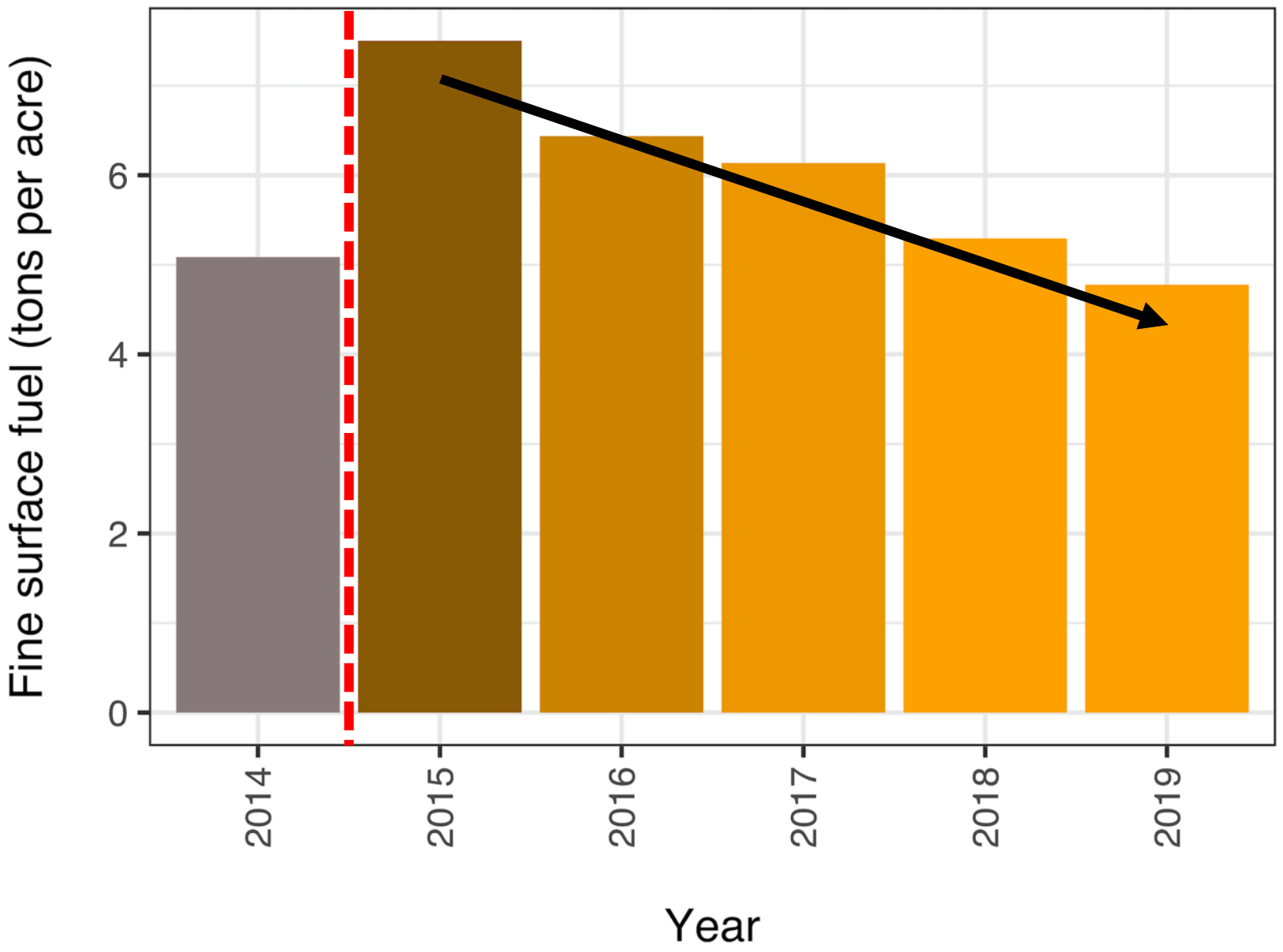


Lessons learned from data-driven monitoring: Salvage

Lessons learned from data-driven monitoring: Dead trees fall down

2016

Lessons learned from data-driven monitoring: Dead trees fall down

2017

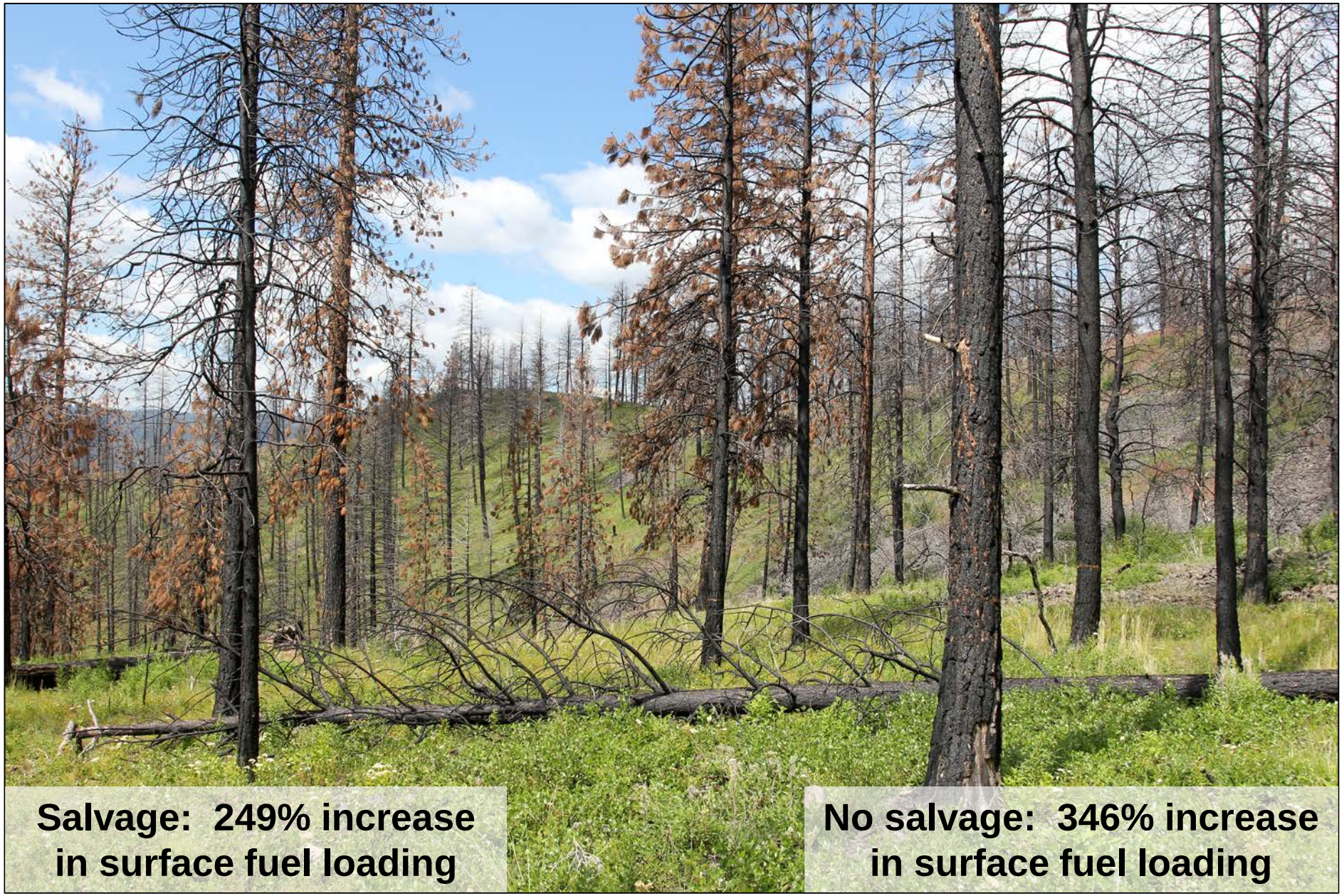
Lessons learned from data-driven monitoring: Dead trees fall down

2018

Lessons learned from data-driven monitoring: Dead trees fall down

2019

Lessons learned from data-driven monitoring: Dead trees fall down



Thanks

Co-PI: Becky Miller

BMFP staff and board: Mark, SJ, Pam, Dave, Ben, Glen, Zach, Elise

Malheur NF: Nathan Poage, Joe Rausch, Steve Beverlin, Amanda Lindsay (and many others)

The crew: Kat Morici, Kate Williams, Kylie Meyer, Brett Morisette, Courtnay Pogainis, Hana Maaiah,Tyler Mesberg, Lexa McAllister, Jordan Woodcock, Claire Moreland-Ochoa, Alex Martinez-Held, Amanda Bintliff, Kevin Mason, Julia Olszewski, Leigh Anna Morgan, Tatiana Dolgushina, Kayla Gunter, Jamie Martenson, Tatum VanDam, Kate Wellons, Joel Riggs, Clark Chesshir, and Lizzie Schattle

Will: Sites are regenerating after large fires, but species composition is skewed towards shade tolerant species (e.g., grand fir).

Christy: Trees respond differently to wildfire and thinning. Low severity fire and/or thinning may optimize tree defenses.

Skye: We can restore historical basal area and density with a particular fire severity, but it is difficult if not impossible to restore historical species composition.

Kerry: We are treating a lot of acres! Although there are significant lags between planning and completion of the full suite of restoration activities. There is a huge lag in prescribed fire.

Julia: We can characterize the effects of treatments using remote sensing tools over large areas.