



## 2019 Uncompahgre Plateau Collaborative Forest Landscape Restoration Project: Forestry Internship Program (FIP) Progress Summary

This report presents a summary of progress and data collected from the Uncompahgre Mesas project area in the summer of 2019. In 2019, members of the Montrose High School Forestry Internship Program (FIP) crew (Fig. 1, 3, 5), led by Lyle Motley (crew leader) and managed and supported by the Colorado Forest Restoration Institute (CFRI), collected data on overstory trees, tree regeneration, surface fuels, and understory vegetation in post-mechanical treatment areas, prescribed burn areas, and untreated areas on the Uncompahgre National Forest, Colorado.

The 2019 FIP crew progress included collecting: 5-year post-treatment data in the Monitor Mesa, 25 Mesa, and Cottonwood Mesa treatment areas; collecting 1-year post-mechanical treatment data in the Lockhart treatment area; and collecting tree regeneration in post-mechanical, post-prescribed burn, and uncut areas (Fig. 2). This was the first opportunity to collect 5-year post-mechanical treatment FIP data, which will be greatly valuable and informative of the ecological impacts of forest restoration treatments. The FIP crew also took post-mechanical treatment and post-prescribed burn photo-points in project areas to use as an important visual tool to evaluate forest change before and after treatments to supplement data collection in these areas (Fig. 4).



*Figure 1: The 2019 Forestry Internship Program (FIP) crew after a hard day at work. From left to right: Lyle Motley (crew leader), Tobin Lanford, Brody Shackelford, Esteban Gutierrez, and Perrin Barrett.*

## 2019 Accomplishments:

### Data collection in Rapid Assessment plots:

- 1) **5-year post-mechanical treatment data collection:** Data was collected in 5 plots in the Monitor Mesa treatment area and 6 plots in the 25 Mesa treatment area (Fig. 2).
- 2) **1-year post-mechanical treatment data collection:** Data was collected in three remaining plots in the Lockhart treatment area, where treatment implementation extended into 2019.

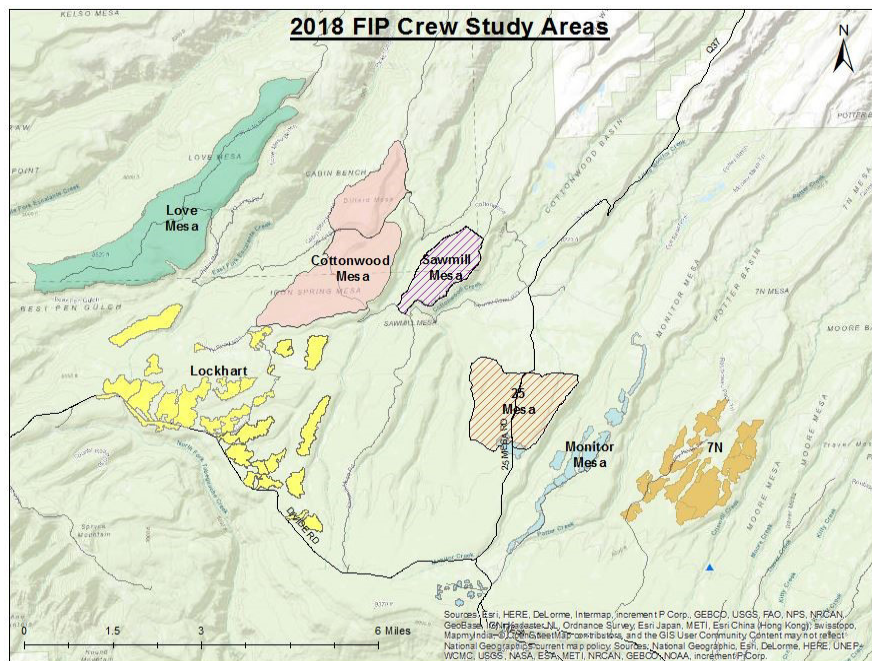


Figure 2: Map (right) of UP-CFRLP treatment areas and 2018 data collection sites in the Unc Mesas project area, Uncompahgre National Forest, Colorado.

### Data collection in regeneration plots:

Between 2014 and 2016, regeneration plots were established across the Unc Mesa/Escalante project area to assess tree establishment following treatments on the Uncompahgre Plateau. In 2019, the FIP crew returned to remeasure a subset of these regeneration plots in uncut, mechanical treatment, and prescribed burn areas.

- a) **25 Mesa:** nearly 50 regeneration plots were remeasured in 2019 in this post-mechanical treatment area.
- b) **Monitor Mesa:** nearly 40 regeneration plots were remeasured in and near cut and uncut areas near this treatment area.



Figure 3: The 2019 Forestry Internship Program crew collecting data on shrub and woody fuels (back) and understory vegetation and forest floor characteristics (front).



Figure 4: Photos taken at established photopoints in the Lockhart treatment area. Pre-treatment photo (left) illustrates presence of undesirable shade tolerant species, such as fir or spruce, which create ladder fuels; post-treatment photo (right) illustrates the removal of ladder fuels and some larger trees, creating openings while retaining desired species such as ponderosa pine and aspen.

### Photopoints:

In 2016-2017, locations were established for repeat photos in mechanical and prescribed burn areas. In 2019, the FIP crew took repeat photos in 12 post-mechanical treatment and post-prescribed burn areas to serve as a visual tool to assess changes to the forest following mechanical treatments or prescribed burning (Fig. 4).

### Field trips:

In 2019, the interns had the opportunity to attend two field trips, the annual CFLRP field trip and the Montrose Wood Product facilities. Unfortunately, the CFLRP annual field trip was held late in the summer, when all of the FIP crew members were out of town, but the crew did attend the Montrose Wood Products field trip, where they learned about forest economics and forest products and processing (Fig. 5).

### Future Steps:

- 1) The Collaborative will determine future steps for monitoring at the 2019 monitoring jam session.
- 2) CFRI will present FIP crew progress at the Uncompahgre Plateau Collaborative Forest Landscape Restoration annual meeting in spring 2020. This will include an update on the 2019 FIP crew progress, and results of data collection and analysis.



Figure 5: (From left to right) Esteban Gutierrez, Perrin Barrett, and Brody Shackelford at the Montrose Wood Products facility field trip.