# Burn Monitoring Using Satellite Imagery in the Apalachicola National Forest (ANF)

## Location


- **North Florida Panhandle**
- **564,961 Acres²**

**Low Severity**

**VS**

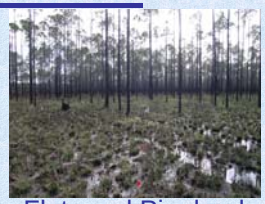
**High Severity**

## Problems

- Fires burn with variable severity.
- Difficult and expensive to estimate the actual acreage and severity of the burn.

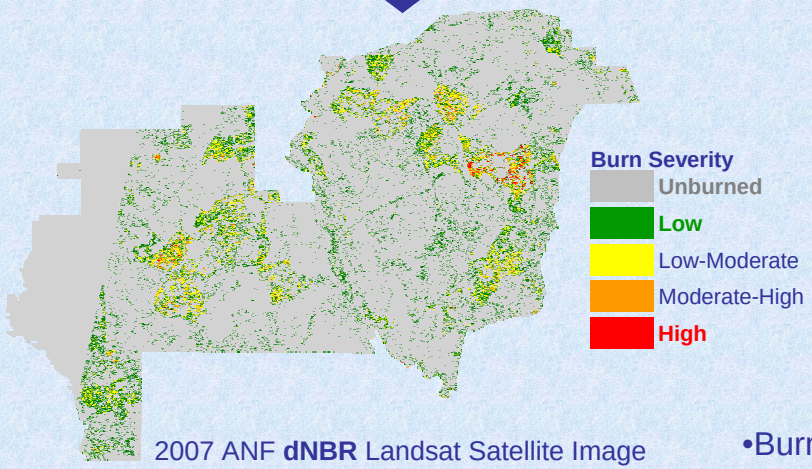
## Main Habitats

Sandhill Pineland



Flatwood Pineland

Depression Swamp




2007 ANF **dNBR** Landsat Satellite Image

## Burn Monitoring

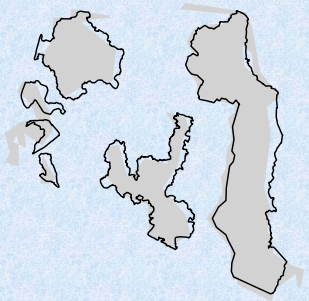
- **NBR** (Normalized Burn Ratio): Remote sensing methodology that is sensitive to changes of reflectance in vegetation and soil caused by fire. **dNBR** Pre- and post-fire NBR images are differenced (dNBR = pre-fire NBR – post-fire NBR) to isolate burned from unburned areas and provide a scale of change (burn severity) by fire.

## Applications

- Burned and Unburned areas can be quickly/cheaply determined and mapped.
- Short/Long-term fire effects on vegetation and soils can be assessed for prescribed burns and wildfires.
- Guides mitigation responses.

## Fire Severity

- Measured as ecological change.
- 90-100,000 acres are prescribed burned each year.
- 7,765 acres burn each year as the result of wildfires.




**Unburned** Area Shapefile Creation

## Contacts

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