

## Modulators

### Vegetation (fuel)

- Biomass
  - Total fuel load
  - Fuel load by size class
- Structure
  - Vertical arrangement
  - Horizontal connectivity

### Fire weather & Ignitions

### Context

- Environmental  
e.g., long-term drought
- Management  
e.g., logging or grazing
- Social  
e.g., fire policy

## Core parameters

- Fire characteristics
  - Fire type (vegetation layer)
  - Intensity (energy release)
- Temporal distribution
  - Seasonality
  - Frequency (return interval)
  - Duration of heating
- Spatial pattern
  - Extent (total burn area)
  - Shape (length vs. breadth)
  - Location & number of ignitions
  - Completeness of burn (patchiness)

## Effects

### Direct

- Physical severity
  - Heating depth
  - Soil structure & nutrients
- Biological severity (mortality)
- Social & economic severity



### Indirect

- Community succession
  - Growth conditions
  - Wildlife habitat
- Physical conditions
  - Aquatic environment
  - Weather & climate
- Landscape planning & fire management policy