**A glossary of key terms. Main term is the recommended usage; previously used synonyms noted parenthetically.**

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| *Bark char [bole char; bole scorch]*: blackened residue of bark resulting from incomplete combustion and indicator of the duration the tree bole was exposed to flames and heat from the fire. Correlates to the heat pulse into tree and has been used as surrogate for cambium kill. |
| *Bark char code [depth of char]*: a classification system used as a proxy for the duration a tree bole was exposed to heating by fire (codes: unburned, light, moderate, deep). |
| *Bark char height [bole char height; stem char height]*: vertical height from ground of blackened bark on a tree bole. Typically measured as either maximum or average height. |
| *Cambium kill*: death of the vascular meristematic tissue (i.e. cambium tissue located between bark and secondary xylem/wood) during fire. Typically occurs on the lower portion of tree stems. |
| *Cambium kill rating*: method used to estimate the amount of cambium kill and stem injury from fire. Requires removing a small sample of bark at four locations at a tree's base. |
| *Cavitation*: process by which air in liquid water held under tension within plant xylem comes out of solution and expands to fill xylem elements, causing a break in the plant's water column and a decrease in hydraulic conductivity. |
| *Crown kill [bud kill]*: portion of a tree's buds (i.e. meristematic tissue that develops into branches, flowers, or foliage; usually at the end of stems), branches, and foliage that is killed during fire. |
| *Crown scorch*: portion of the tree's foliage that is killed during a fire. Foliage appears brownish red within days of fire. Crown scorch is usually expressed as a percent of either pre-fire crown volume or crown length. Mostly commonly, crown scorch estimates also include crown kill, but sometimes these injuries are measured separately. |
| *Direct fire effect [first-order effect]*: impacts from fire occurring during and immediately after a fire from heat-induced chemical processes; includes tree mortality solely from fire-caused injuries and not due to interactions with other stressors. |
| *Duff*: layer of moderately decomposed organic material, encompassing the fermentation (Oe) and humus (Oa) organic soil horizons. Duff occurs beneath the litter horizon (Oi) and above the underlying mineral soil. |
| *Epicormic bud*: dormant or adventitious bud on the stem or branch of a woody plant from which a shoot can arise after stimulation by stress or changes in light availability. |
| *Fire severity*: physical, biological, and ecological effects of a fire on ecosystem properties; in forests usually quantified by the level of tree mortality or the degree of soil heating. |
| *Flame length*: distance from the middle of the flaming zone at the base of the fire (usually the ground) and the average flame tip. |
| *Heat flux*: amount of heat released per unit area over time. |
| *Hydraulic conductivity (Kp)*: ease with which water moves through the vascular xylem of a plant. |
| *Indirect fire effect [second-order fire effect]*: impacts from fire, occurring days to years after fire due to interactions with direct fire effects and other factors such as post-fire climate and insects. |
| *Non structural carbohydrate (NSC)*: mobile, nonstructural carbon in plants not used in building structural biomass, but to buffer deficits in maintenance and growth demands. |
| *Scorch height*: the maximum vertical height at which lethal heating (i.e. reaches 60 °C) occurs during fire; used to estimate crown length scorched. It is mathematically related to fireline intensity and flame length. Many post-fire tree mortality models do not differentiate tissue types and assume all crown tissue (foliage, buds, branches) within the scorch height zone is dead. |
| *Smoldering combustion*: slow-moving, low-temperature, solid-phase burning of fuel without the presence of flames. |