

Georgia Appalachian Trail Club

Glossary of Terms

This glossary is from the “Appalachian Trail Design, Construction and Maintenance (Second Edition)” manual, published by the Appalachian Trail Conservancy (Harpers Ferry, WV 2000). *Italicized words* are defined in other locations.

Access trail: A side or connecting trail to the Appalachian Trail.

Accessibility: In trail design, accessibility refers specifically to removing barriers to persons with disabilities.

Alternate trail: Alternate trail that begins and ends at, and generally parallels, the main trail.

Backfill: Material used to fill behind a trail structure such as a *crib* or a step.

Backcountry: Land that is inaccessible to conventional automobiles, usually one-half mile or more from paved roads.

Backslope: Bank above the trail *tread* resulting from construction.

Batter: Leaning back from the vertical of a retaining wall or a *crib*; a receding upward slope of the outer face of a structure.

Bench: Excavated walking surface of the trail across a *sidehill* location; full bench is built with no fill, the *tread* being entirely located on undisturbed *mineral soil* remaining following excavation; partial bench is partially built on fill.

Berm: Raised outside edge of a trail.

Blaze: Painted trail marker.

Bleeder: Graded depression angled to drain water sideways off the treadway; also called *kickouts*, *thank you ma’ams*, and *diversion dips*.

Block: Pulley in which a rope or cable is threaded through (see *snatch block*).

Blowdown: Tree that has fallen across a trail.

Bog bridge: Wooden walkways or flattened logs that bridge wet terrain; also called *puncheon*.

Borrow pit: Hole in the ground that supplies mineral soil for *tread* construction.

Cairn: Cone shaped pile of stones built to mark a trail in the alpine zone or other open area.

Choker: Loop of nylon, rope or cable cinched onto a load, so it gets tighter, or “chokes” the load under pressure.

Clinometer: Hand-held measuring tool that measures slope in percent or degrees gradient.

Compaction: Tendency of soil to lose pore space and become compressed or impermeable to water when repeatedly walked upon; a precursor to *erosion*.

Contour: Line on a map connecting points of the same elevation. To *contour* is to move through a landscape on the same elevation.

Control Point: In trail design, a spot that the trail must cross, or must avoid; sometimes referred to as a *target*.

Coweta dip: 10- to 15-foot-long reverse change in trail elevation that permits water to be shed from the bench; one of the most effective drainage techniques; also called a *grade dip* or *reverse dip*.

Crib, cribbing: Tread structure generally placed below the outside edge of the trail to hold *tread* soils in place; may be made of either rock or wood.

Culvert: Hollow pipe for draining water across a trail or a road; natural culverts have been built

using hollow logs and with rock; usually made with corrugated steel.

Dado joint: Slot cut in wood.

Drainage, diversion or grade dip: Drainage channels reinforced with earthen mounds running diagonally across treadway for shedding water.

Drainage: Characteristics of water runoff on or near a trail.

Duff: Organic layer of the soil containing roots, leaf litter, and mold; also known as *humus*.

Elliptical triangle: Shape of signs for trails in the national trail system; also called a *pregnant triangle*.

Erosion: Natural process by which soils move downhill or downwind; may be greatly accelerated on trails from water, wind and user traffic.

Fall line: Straight up or down the slope; flowing water will follow the fall line; fall line is perpendicular to the *contour line*.

Fines, soil: Smallest soil particles important for binding the soil together; silt; fines are often the first particles to move when erosion takes place.

Flagline: Proposed location of a trail, marked in plastic flags, as in the relocation flagline.

Flushcut: Branch or sapling cut flush with the trunk or ground.

Foreground: View from the immediate vicinity out to one-half mile; contrasts with the view of the middle-ground and background.

Friction pile: Post hammered into muck until friction prevents further penetration; foundation for *puncheon* or *boardwalk*.

Geosynthetics, geotextile or geofabrics: Plastic, woven or non-woven fabrics, sheets, nets, grids,

or honeycomb-like mats, usually made of polypropylene, designed to help stabilize the *treadway* and are usually manufactured for forest roads.

Global positioning system (GPS): Small, hand-held receiver or unit that reveals the user's latitude, longitude and altitude by timing signals received from orbiting satellites maintained for navigation by the U.S. Government.

Grade, gradient: Amount of inclination of the trail usually measured in *percent slope* or in degrees from the horizontal.

Hardening Process of improving or firming the *treadway* so it can withstand traffic, erosion, or by removing or bridging water.

Hazard tree, widow maker: Tree or limb that is either dead or with some discernable structural fault that is hanging over or leaning towards sites where people congregate, such as an overlook, campsite, shelter, bridge or trailhead.

Helical pier: Steel post with auger-shaped bit-end that is rotated into wet soils either by hand, or with the aid of specialized hydraulic tools to establish a foundation for *puncheon* or *boardwalk*.

Humus: See *duff*.

Invasive exotic: Non-native plant or animal species that invades an area and alters the natural mix of species.

Kick out: See *bleeder*.

Layout: Design of a trail location in the field.

Limits of acceptable damage (LAC): Process used by the Forest Service in which site-specific impact parameters trigger planned management actions to limit further damage.

Mechanical advantage: Multiplication of work force using simple machines such as a lever, the inclined plane, the wheel, and the pulley.

Mineral soil: Soil free of organic matter used for the trail tread construction.

Minimum tool rule: Using the simplest tool adequate for a job. In designated wilderness, always use the minimum tool, equipment, device, force, regulation or practice to accomplish the desired results to ensure compliance with the intent of the Wilderness Act.

Mulch: Organic matter spread on newly constructed trail work to help stabilize soils and protect them from erosion.

National Environmental Policy (NEPA): Federal law that requires environmental and social impact analyses and public involvement for ground-disturbing proposals on federal land.

National scenic trail: Extended trails that may only be designated by Congress under auspices of the National Trails System Act (1968); Appalachian National Scenic Trail was the first national scenic trail in the nation, designated in the original act.

Organic soil: Top layer of the soil containing roots, leaf litter, and mold; see *duff*.

Outflow, or outwash: Water and its sediment load once it leaves the trail and the area it flows through.

Outslope: Slope of the *bench* towards its outside edge; recommended outslope bench to shed water should be 1-inch deep in 18 horizontal inches, or about 5 percent.

Percent slope: Number of feet rise (vertical) divided by feet of run (horizontal) times 100 to get percent slope; example: 15-feet of rise over 100-feet of run is a 15 percent slope.

Pinned step: Step held in place on a ledge or a rock slab by steel pins set in holes drilled in the rock.

Pregnant triangle: see *elliptical triangle*.

Puncheon: see *bog bridges*.

Rebar: Steel reinforcing rod that comes in a variety of diameters, useful in manufacturing pins or other trail anchors.

Relocation: New and different location for the trail.

Riprap: Stones or rocks placed next to each other to the side of the trail to mitigate erosion and confine the impact of traffic.

Rigging: Cable works and hoists used to lift, rotate and move large, heavy rocks and logs.

Riparian zone: Land surrounding a lake or stream.

Root ball or root wad: Earth and soil that is lifted up when a tree and its roots fall over.

Scree or talus: Rock piles that form at the base of ledges or mountains through weathering.

Sheet drainage: Desirable condition in which water flows in smooth sheets rather than rivulets; slower flow and less concentration results in less erosion.

Sidehill: Trail location that cuts across the slope or the side of the mountain, as opposed to following along the top of the ridge, or along the *fall line* which goes straight up and down the slope.

Sidehilling: Process of excavating or cutting a *bench* across the slope.

Sideslope: Angle of inclination of the land along the *fall line*, usually measured in *percent slope* or in degrees from the horizontal.

Sill: Lowest horizontal timber in contact with the ground or a rock foundation of a structure such as a bridge or shelter; usually perpendicular to the trail.

Skyline: Rigging system with a highline in which a load is moved via a pulley, pulled by a separate rope.

Slackline: Rigging system with a highline which is lowered to pick up a load, then tightened to move the load.

Slope: Angle of the ground from a level position measured as a ratio in percent of rise over run, or in degrees.

Soil auger: T-shaped tool with a special tip for turning into soil to probe its content.

Soil profile: Site specific arrangement of soil layers from the surface to bedrock.

Snatch block: Pulley with hinged side plate allowing attachment anywhere along a fixed rope.

Spall: Stone chip or fragment; to break up into chips or fragments.

Spur trail: Dead end side trail to a vista, water source, campsite, etc.

Steel rungs: Placed on rock faces or ledges to provide ladder-like access in steep terrain.

Stile: Ladder or a set of steps to allow people, but not livestock, to pass over or through a fence or wall.

Stringer: Beam or structural member that bears the load on a bridge or set of *puncheon*, usually laying on *sills*.

Stub or **stob:** Projecting (and hazardous) piece of branch or sapling not cut flush with the trunk or ground.

Switchback: Acute turn in the trail's direction to gain or lose elevation where an obstacle prevents continuation of a constant trail grade.

Target: see *control point*.

Thank you ma'ams: see *bleeders*.

Trail: Blazed, beaten, or constructed path.

Trail corridor: Land on either side of the trail. On the A.T., the foreground area designed to protect the A.T. experience; corridor of land averaging about 125 acres per mile, or 1,000 feet wide, has been acquired by both the National Park Service and Forest Service to protect the trail across former private lands.

Trailhead: Beginning of a trail or trail section, or an access point, sometimes with parking, information signs, etc.

Tread or **treadway:** That part of the trail which is walked upon; the footpath; the *bench*.

Turnpike: Low, linear, elevated earthen walkways across flat, wet areas, with fill held in place by rock or log cribbing.

Universal design or **access:** Few if any barriers exist to inhibit accessibility; access without limit or exception.

Waterbar: Rock or log structure diagonally across the trail to divert water and mitigate erosion.

Wetland: Areas that are periodically inundated by water resulting in distinctive soils and plant communities characteristic in such places.

Wilderness: Congressionally designated public land areas to remain in their natural state.

Wire flags: Wire wands with square plastic flags at one end for field layout and marking of *relocations* or new trail sections.

Zipline: *Rigging* system with a taut, stationery wire rope highline for moving loads on a moving pulley.