

Bushwacker's difficulty ranking

Many readers react initially with amusement to this ranking, but it's one of the more useful measures of habitat structure, and a strong influence on cover and foraging values for wildlife. For example, larger mammals such as deer and bear are no more fond than we humans of stumbling around in annoying brush tangles. When they do seek out tangles, it's for cover from things they like even less.

The **bushwacker's difficulty ranking** for Southeast Alaska—first developed in 2005 by Christensen and Carstensen—ranges from d1 to d10: d1 is sidewalk, and d10 is suicidal. “d” stands for difficulty. The ranking ignores factors that vary temporally. A given terrain should have the same d-rank in summer and winter, rain or shine, buggy or bugless, and whether traversed up- or downhill. It's also independent of subjective factors: whether the bushwacker feels grumpy, exhausted, allergic, etc.

Here's the breakdown:

d1 is level and mostly brush free. Most trails are d1 or d2. Hikers needn't look at their feet while walking. If you look up at the canopy while walking, and trip over a root, you're in d2.

d2 Visually unobstructed. You can see a deer 50 yards away in d2 understory. Terrain may be rolling, but uphill portions don't induce shortness of breath as compared to level hiking.

d3 Many mature second-growth forests, and some fairly closed-canopy old-growth forests with sparse understory are d3 bushwacking. Bushes are present, but mostly waist height or less, and it's easy



An inviting, d3 interlude within a mostly d5+ forested wetland near road's end on Sayéik (Douglas Is). Bushwackers can stroll throughout this understory without thrashing in brush.

to weave your way without thrashing. Same goes for down logs; they're present, but you rarely have to climb over or stoop under if you choose a good route.

d4 At this stage, brush thrashing is unavoidable, and down logs present some minor gymnastics. In open, herbaceous habitats (eg bluejoint high-marsh at upper reaches of tidal wetlands) bushwacking can occasionally be as high as d4 where grasses or sedges are so thick you can't see your feet, combined with so many hidden pits and sloughs that rapid walking risks injury.

d5 At this stage, visibility is restricted by blueberry, menziesia or devil's club. Often, you can't see your hiking partners 10 yards away. Log obstructions are common, but you don't have to go down on hands and knees. With good raingear, you should

be able to stay dry all day in d5.

d6 If the day's bushwack averages d6+, it becomes impossible even with the best raingear to keep your shirt collar and forearms dry; frequent contorted poses offer day-long opportunities for rain to drip inside your hood, or up your sleeves. Also, by day's end, clothing is saturated with sweat from strenuous gymnastics. After a day of d6, there are usually at least 3 hemlock needles in the bushwacker's underwear.

Up through d6, understory brush may be encountered beneath tall trees with more than 50% canopy coverage. But for the kind of brush density characterizing d7+ bushwacking, open sunlight is necessary. That means d7+ habitats are either early successional (trees too young to offer shade



Edge of unravelling forest downwind of recent clearcut near Hoonah.

exclusion) or scrub wetland, where stressed trees with sparse crowns cast little shade.

d7 Uninitiated hikers begin to grunt and whimper, and to question the leader's sanity. A good portion of travel is atop slippery, bouncy, or breakable logs, with little to cling to for support other than thorny devil's club and salmonberry. Another d-factor in addition to brush density and thorniness is advanced stages of log decomposition following long-ago blowdown or earliest logging. This is relatively uncommon but places bushwalkers at greater risk of lasting injury than the scratches, rashes and infections from d6 or easier brush-bashing. Moss-concealed class-IV rotting logs, decaying roots, and wetland 'pipes' can slow the more cautious bushwacker to a snail's pace, even in some fairly open understories that visually might be ranked d4 or less. The *incautious* bushwacker eventually suffers a

d-level and speed:

Another way to think about bushwacking difficulty is how fast we can travel. (this isn't about trail running for sport, but efficient movement over challenging ground. Here are some speeds that fit hikers should be able to sustain without injury for several hours:

- **d1-d2:** 3 to 4 mph
- **d3-d4:** 1 to 2 mph
- **d5-d6:** 0.5 mph
- **d7-d8:** 0.1 mph
- **d9:** don't even try it.

sprained ankle or worse.

d8 It's unusual to travel 100 yards through d8 without bleeding. I've never spent more than an half an hour in continuous d8. You often can't see your feet, and brush is so dense the only way to move forward sometimes is to fall. d8 entails convoluted terrain, blowdown tangle and dense brush. Each step is a logistical consideration. Many recently-thinned 25-to-35-year-old clearcuts without slash removal are d8.

Another habitat averaging d8 or greater is beaver swamp. To a wolf or bear, a beaver is a delicious, high-fat, slow-moving meal. Beavers therefore do all in their power to maintain an impregnable refuge from large, non-amphibious meat-eaters. The only way a human could cross these cold-water moats in semi-comfort is with anglers' float-tube chestwaders, and even these risk of puncture on beaver-sharpened, submerged branch-stobs.

d9 No rational human would spend more than a few moments in d9. But perceived obstructional density is scale dependent. These supremely brushy places are often ideal cover and foraging habitat for songbirds and small mammals, while deer-sized

critters prefer easier traveling conditions; their main incentive for penetrating d8-d9 habitats is predator avoidance.

d10 I'm alive at time of this writing; therefore I've not yet experienced d10. Southeast Alaska has little d9 and d10 habitat compared to seriously angry bioregions such as coastal Mexican thornscrub.

The d-rank and succession. The bushwacker's difficulty ranking is an interesting way to evaluate successional trends. Each disturbance sets off its own unique trajectory. For example, after logging of a d5 upland hemlock old-growth stand, years 1 to 25 are typically d7 to d8. With canopy closure and settling of slash at 40 to 50 years, difficulty typically declines to d2-d4. After several centuries, with tree fall and increased canopy gaps, the brush mosaic re-establishes, and average difficulty returns slowly to d5. Note that in this example, the higher the difficulty, the better the summer wildlife habitat. In winter, however, d5 old growth provides superior cover and forage for resident birds, mammals and fish.