

Stem Collection Field Instructions

When recording a new stem (recruit)...

Assign it a new tag ID if it is a new organism.

Record the *X* and *Y* coordinates, *species*, *POM*, *DBH*, *status*, *mode*, and damage information on a blank stem sheet.

If it is a previously unrecorded species, please add how you identified the species of the stem into the *Notes* column.

Either local or scientific names are acceptable.

If you cannot identify the species of a new stem...

Take a sample of the leaves, fruit, seeds, or flowers and record the voucher ID in the *Notes* column.

If a stem has no tag...

Check the ground to see if the tag has fallen off. Use the location of the stem against the data sheets to determine if it has already been recorded in another census.

If no tag or record can be found, record it as a recruit.

If a POM of 1.3m is not viable due to damage....

Record the new POM in the *POM* column and the associated DBH in the *DBH* column.

Record the DBH at 1.3 m in the *Notes* column with reason why a POM 1.3 m is not viable (e.g. wound, swelling, bark loss, or branch).

If the stem is wounded...

Record as “y” in the *Mode* column.

Then in the *Wound dimensions* column, record the maximum height and width of the wound.

Optionally record the percentage of cambium exposed (i.e. bark missing) in the *Notes* column. This should be estimated on 4 sides of the stem, from the ground to 2 m height.

If a new stem is sprouting from a tree that is already tagged....

Give the stem a new tag, check for an existing tag on that organism, and record at least one existing tag ID in *Tree ID*.

If a stem is dead...

And the rest of the tree is dead, mark the stem as dead (**D**) in the *Status* column, otherwise, if there is life elsewhere on the tree, mark the stem as resprouting (**R**)

If dead (**D**), make sure to record the *Mode*, *Cause of Damage*, the dimensions of any wounds, and extra *Notes*.

If a stem is missing...

Do your best to locate the stem using the information on the data sheets.

If the stem cannot be located, record it as vanished (**V**) in *Mode*.

Status	Mode	Cause of Damage
A = Alive	B = Broken (above break detached)	A = Animals (not elephants)
R = Resprouting, stem dead, but signs of life elsewhere (base or other stems)	C = Climbers or stranglers in canopy	E = Elephants
D = Dead, stem and base dead	F = Fallen, not supporting weight	F = Fire
	G = Hollow or fluted	H = Human
	J = Bark peeling or lost	I = Frost
	K = Bracket fungi	L = Lightning
	L = Leaning (>15°)	M = Termites
	M = On termite mound	N = Neighbouring tree
	N = New recruit	O = Other (describe in notes)
	P = Snapped (still attached)	Q = Unknown
	Q = Location unknown, not found	W = Wind
	S = Standing	
	T = Stump	
	U = Uprooted	
	V = Location known, vanished	
	W = Stem is a liana	
	Y = Wounded	
	Z = Sick or rotten wood	

Decay

Place a number (1-5) in the Decay column based on the table below.

Class	Structure	Wood texture	Wood colour	Branches and twigs
1	Sound, firm	Intact, no rot	Original colour	Branches with fine twigs present
2	Heartwood sound, sapwood a bit decayed	Sapwood partly soft. Wood cannot be pulled apart by hand.	Original colour	Branches with some fine twigs present with peeling bark
3	Heartwood sound, log supports its weight	Large hard pieces of sapwood can be pulled apart by hand	Red-brown, or original colour	Large branches with no fine twigs, branches do not pull out by hand
4	Heartwood rotten, log does not support its weight	Soft, small, blocky pieces. Heartwood is soft.	Red-brown, light brown, grey-brown	Large branches pull out easily by hand
5	No structural integrity, no longer maintains shape	Very soft, powdery when dry.	Red-brown, dark brown	Branches not present