

## Methodology for a vegetation survey in the rehabilitation area.

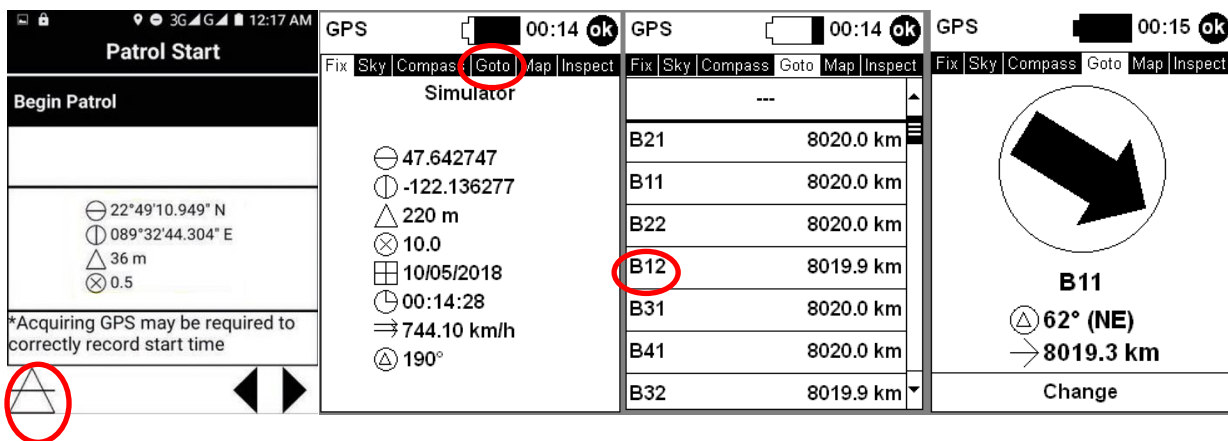
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This document is a help in setting up the protocol for a vegetation survey. This allows to display the effect of different types of management on the community areas over time. As a result, it helps in adaptive management, meaning that changes can be made quickly/timeously to the system. Ideally, the results of these comparisons will help inform communities about the most effective and efficient working in their area.

### Protocol: Line-Point intercept Transect for BrushPacking Project

The method applies according to the following instructions:

- Turn on the CyberTrack software on your device.
- Choose "Go to" method
- Choose "Begin Patrol".
- Go to the given GPS coordinates (Red Cross, Stick erosion), choose the point you need to do.
- Click on the triangle at the bottom left → Press "Goto" → Choose the point where you have to go.

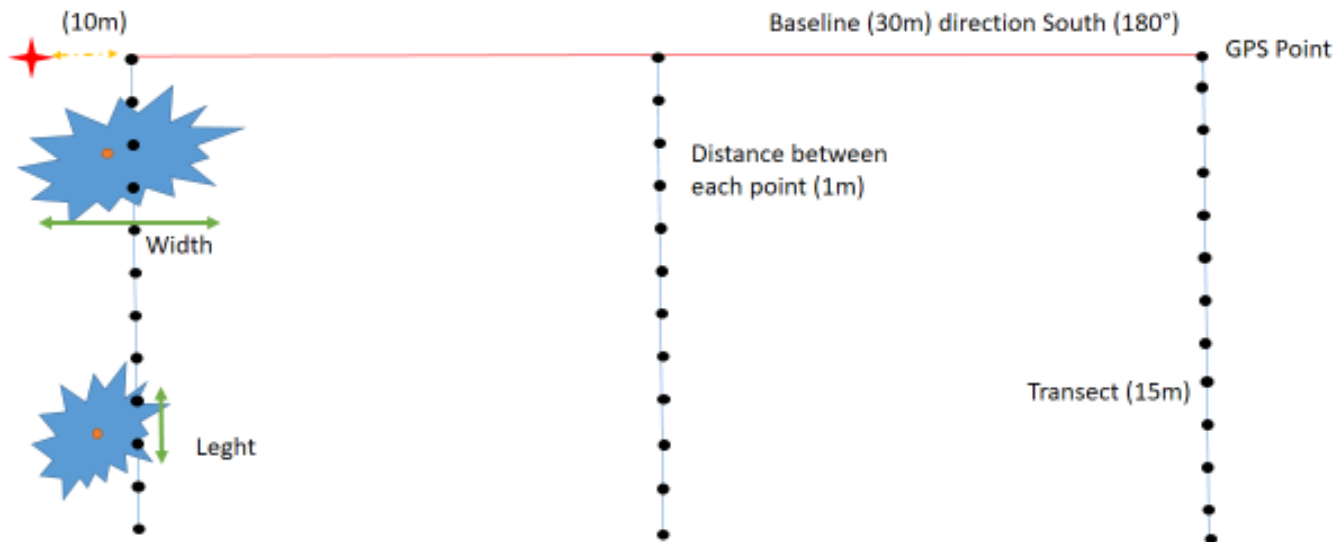


When you arrived at the point, click on the back arrow until when you can choose "Exit CyberTracker". The pin code for Exit is "1-2-3-4".

- Choose "Brushpacking Project".
- Your patrol (SMART PATROL) starts to save data at the erosion stick and ends at the end of the third transect.

For registered the data in Smart choose Brushpacking Project:

- Brushpacking Project → Choose "Begin Patrol" → Station "choose where you are" → Mandat choose "K2C" → Members "choose your designated group" → Choose Leader of your team.
- First step focus on the Erosion stick. Make a observation → Erosion → Choose name written on your stick → and record the data of soil size in millimeter → Save a new waypoint



-From this point (erosion stick, Red Cross on the schema), you can start to make a baseline of 30m in the southern direction (180 ° C) at 10 meters from erosion stick. Remember, if the sun rises at your right side, the south is in your back.

-At 0 meter, 15 meter and 30 meter put a stick. At the locations of the sticks, create a transect of 15m perpendicular to the baseline (blue line). The three transects must all be in the same direction.

-Take the device, and continue the patrol. You will arrive normally to next task page, the main page.

-On this transect at each meter and from the point 0 make an observation of what you see in an area big like a coin of 5 Rand (Grasse, Ground, Forb and Tree) and follow the instructions and complete the attributes. So the procedure is "Make Observation" → "Line transect" → "Point transect" → choose if you see a the following options; "Grasse" if you touch a leaf, "Tree" if you touch a trunk, "Forb" if you touch a forb or "Ground" if you touch nothing. Then, follow the instructions and complete the attributes. And in save observation page click on "Add to last Waypoint".

-Move to the next point, next meter

-If on the transect or in 1m on either side of the ribbon you meet a Brushpack (cluster of Brush) follow the procedure for the Brushpack attribute and add the point as a new waypoint. The procedure is as followed; "Make Observation" → "Line transect" → "Brushpack". Follow the instructions and complete the attributes. In save observation page click on "Save as new waypoint" in the middle of Brushpack.

-At the end of the last transect of baseline (Third), at Next Task page choose "End Patrol".

- To go to the next point, click on "Stat New Patrol" and start the procedure of the beginning.

### The attributes for protocol are:

Under Brushpack: See if your point it is under a Brushpack.

Shade Cover: The percent of shade present where you have a point.

Species Grasses: List of species grasses you can see.

Palatable: For you if the grass is palatable for a cattle, if the cattle like eat this grasses. Depends of the size of grass and also size of leaf.

Species Tree: List of species tree you can see.

Form Tree: Form of tree you can see, Lolipop, Spread, Mature, No cut.

Height Tree: Class of tree height.

Grasses under: If you see species of grasses under tree.

Species Forb: List of species forb you can see.

Type soil: Type of soil you can see.

For attributes of Brushpack are;

Lenght: Size BrushPack cut by transect exactly, not the lenght of Brushpack, but size exactly cut by transect.

Width: Size Brushpack, width of Brushpack.

Cover Grasses pourcent: Percent of grasses present under Brushpack.

Species Grasses: List of species grasses present under Brushpack.

For erosion attributs are

Stick name: List name of erosion stick.

Size: Read where the floor is on stick graduation.

**Grasses**

*Aristida congesta sub barbicollis*  
*Aristida congesta sub congesta*  
*Bothriochloa insculpta*  
*Brachiaria brizantha*  
*Brachiaria nigropedata*  
*Chloris virgata*  
*Cymbopogon validus*  
*Cynodon dactylon*  
*Dactyloctenium australe*  
*Digitaria eriantha*  
*Digitaria velutina*  
*Eragrostis gummiflua*  
*Eragrostis superba*  
*Eragrostis trichophora*  
*Heteropogon contortus*  
*Melinis repens*  
*Panicum maximum*  
*Panicum natalense*  
*Paspalum notatum*  
*Perotis patens*  
*Pogonarthria squarrosa*  
*Schmidtia pappophoroides*  
*Setaria megaphylla*  
*Setaria sphacelata var shacelata*  
*Sorghum helepense*  
*Themeda triandra*  
*Tragus berteronianus*  
*Tricholaena monachne*  
*Urochloa mosambicensis*  
*Urochloa oligotricha*

**Trees**

*Acacia exuvialis*/Flaky-barked thorn  
*Acacia nigrescens*/Knob thorn  
*Albizia harveyi*/Bushveld false-thorn  
*Combretum apiculatum*/Four-leaved bushwillow  
*Combretum hereroense*/Russet bushwillow  
*Combretum zeyheri*/Large-fruited bushwillow  
*Dichrostachys cinerea*/Sicklebush  
*Ehretia amoena*/Sandpaper-bush  
*Euclea divinorium*/Magic guarri  
*Ficus stuhlmanii*/Lowveld fig  
*Grewia bicolor*/White-leaved donkeyberry  
*Ormocarpum trichocarpum*/ Hairy caterpillar-pod  
*Peltoporum africanum*/African wattle  
*Pterocarpus rotundifolius*/Round-leaved bloodwood  
*Sclerocarya birrea*/Marula  
*Strychnos madagascariensis*/Black monkey-orange  
*Terminalia sericea*/Silver clusterleaf  
*Ziziphus mucronata*/Buffalo thorn