

May 11, 2009

Dear Climate Action Reserve Forest Protocol Team,

I think you need to revise the statistical test proposed to support the exception to the 12-plot life explained in pages 51-52 of fpp- update\_forest-project-protocol.pdf.

As stated, the Project Develop will always be able to demonstrate that the subsample is not different from the updated inventory, simply by using a small sample size. Small sample size leads to large variance and large variance leads to small t-value with few degrees of freedom.

Small t and few dfe lead to nonsignificance and "acceptance" of  $H_0$ .

One way to resolve this is to specify a difference D that is the largest acceptable between subsample and updated inventory to take them as not "biologically significantly" different. Then pose the following:

$H_0$ : the absolute difference between subsample and updated inventory is greater than D.

$H_a$ : the difference is smaller than D and we can then assume they update is good enough.

the rest of the test should be described more or less the same way, except that you have to specify that in order to get the exception,  $H_0$  must be rejected with  $\alpha=0.10$ , and you have to correct the test to be two-tailed instead of one tailed, unless you want to accept underestimation by the computer model.

I will be happy to explain this as necessary. I am also interested in providing applied statistical advice to CAR as part of my university professional service.

Regards,

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