bg-2014-313 Technical Note: Hyperspectral Lidar Time Series of Pine Canopy Chlorophyll Content Throughout paper Chlorophyll should be chlorophylls. Revision submitted 30 Jan 2015

This Associate Editor agrees with a comment on the interactive discussion C8386 that sampling points at 20nm bandwidth does not constitute "hyperspectral data" should be changed to "multispectral". In all other optical RS domains this would be regarded as multispectral. In addition, all the indices presented are two band multispectral.

A table or some method should be included mapping the wavelengths used in this paper to the wavelength in the Equations from the previously published indices presented

Throughout the paper, the use of "about" is rather unscientific." Approximate" should be used instead.

The associate Editor previously commented "The issue of shape was commented on by one of the 1st reviewers. This has not been addressed and needs to be. The comment was Shape - this is never defined, described or explored in any depth. Location of needles on branch? Reference to shape needs to be expanded or removed." The use of the terms morphology and form may help resolve this

Throughout the Figures "$\mu g/cm^2$" of what?

L18 "The photosynthetic activity in tree canopy is an indicator of tree health." Should be something like "The photosynthetic activity of leaves within a tree canopy is an indication of tree health."

L61 there is no blue wavelength so cannot be considered "white"

Ln 126 "The overall shape of the tree and changes in shape from May to November can be observed in Figure 1 where no spectral information is used. The changes in the shape and the spectra of tree parts are visible in the spectral point clouds." The 1st sentence states not spectral information the 2nd states there are "…spectral point clouds". I do not understand what is meant.

Ln176 " …grown new needles 09-12 and dying and falloff of old needles (shown in bluish green , low…" Reference to "bluish green" should be removed. They are subjective terms and depend on readers' eyesight

Should the Equation identification number not be cited in the text?

Ln219 "reflectance is not completely removed. Further study would be required to produce **a** physically …"

Ln 201 "We demonstrated that the seasonal changes in the shape and physiology of tree parts are …". The terms canopy and leaves should be used for photosynthesising components and possibly branches for structural items if there were being discussed

Ln "209 signal that has the potential to eliminate many of the multiple scattering and geometric …" then Ln 218 contradicts this in part . "However, the influence of multiple scattering effects to the measured backscattered reflectance is not completely removed." And on to Ln 221. The text needs to be tightened up here

The text in paragraph starting on Ln 218 seem to be incomplete. Can be overcome by LIBERTY. So should we give up on Vis and this laser method and use LIBERTY instead? That is what is implied.

Ln231 There is repetition in this paragraph and it should be rephrased.

Ln 238 Has a vast amount of research not already tried to optimise spectral indices for different applications. I suggest only optimising the laser band to mach these is what is important foto take this system forward