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Interactive comment on "Characterizing Leaf Area Index (LAI) and Vertical Foliage Profile (VFP) over the United States" *by* H. Tang et al.

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Thank you for your comments. This is an excellent question regarding understory measurement using GLAS data. There are two main factors leading to the skewed distribution of leaf area in Table 1 and Figure 8.

First, we did find a relatively lower measurement accuracy of GLAS VFP in understory, and suggested a tradeoff between vertical resolution and accuracy (see page 13686-13687). This low accuracy was due to combined factors from slope-induced error, large footprint size and issues with Gaussian methods, which cannot be fully corrected for currently.

More importantly, LAI profiles (or layers) reported in Table 1 and Figure 8 are averaged results from GLAS transects. That is each is the average of all waveforms for that landcover type. This averaging will naturally pull down the peak in LAI as it combines profiles from canopies of many different height canopies. Any individual profile will have a shape that could be quite different, but statistically will occur within the error bounds we show in Figure 8.

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