

Correspondence

Correction to “Using Thermal Time and Pixel Purity for Enhancing Biophysical Variable Time Series: An Interproduct Comparison”

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There is a small error in our paper [1] regarding the definition and the implementation of equation (3), defining the proposed temporal smoothing index (TSI). The correct formula should read:

$$TSI = 1 - \frac{1}{n} \sum_{i=1}^n |\Delta_{1,i} - \Delta_{2,i}| \quad (3)$$

Consequently, the correct values in Table II are the following:

TABLE II
MEAN TEMPORAL SMOOTHING INDEX (TSI) FOR THE 5-YEAR PERIOD FOR THE 3 PRODUCTS AT L1 AND (IN PARENTHESIS) THE DIFFERENCE BETWEEN L1 AND L0. VALUES ARE PROVIDED FOR DIFFERENT CROP SPECIFIC PIXEL PURITY THRESHOLDS (π) RANGING FROM 25 TO 45% FOR MOD AND CYC AND FROM 75 TO 95% FOR CSG

π	MOD		CYC		CSG	
25/75	0.826	(0.071)	0.885	(0.030)	0.796	(0.011)
30/80	0.820	(0.073)	0.883	(0.027)	0.786	(0.005)
35/85	0.818	(0.068)	0.881	(0.027)	0.774	(-0.006)
40/90	0.814	(0.063)	0.880	(0.025)	0.760	(-0.014)
45/95	0.808	(0.064)	0.879	(0.026)	0.745	(-0.016)

These corrections do not change whatsoever any of the general conclusions of the paper, but some of the comments regarding the interpretation of this table must be revisited.

CYC still has the smoothest L1 time series, but the new calculations show MOD L1 time series as slightly smoother than those of CSG. The transition from L0 to L1 processing steps still improves the smoothness in most cases, with the exception of CSG time series with high purities. Finally, smoothness and the increase in smoothness now decrease with pixel purity (π) for all three products. This is expected since higher π thresholds result in a smaller sample set of time series to construct the median curve, which could therefore be less smooth to begin with.

REFERENCES

- [1] G. Duveiller, F. Baret, and P. Defourny, “Using thermal time and pixel purity for enhancing biophysical variable time series: An interproduct comparison,” *IEEE Trans. Geosci. Remote Sens.*, vol. 51, no. 4, pp. 2119–2127, Apr. 2013.

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