

Supplement to: Variation of Individual Location Radiances in VIIRS DNB Monthly Composite Images

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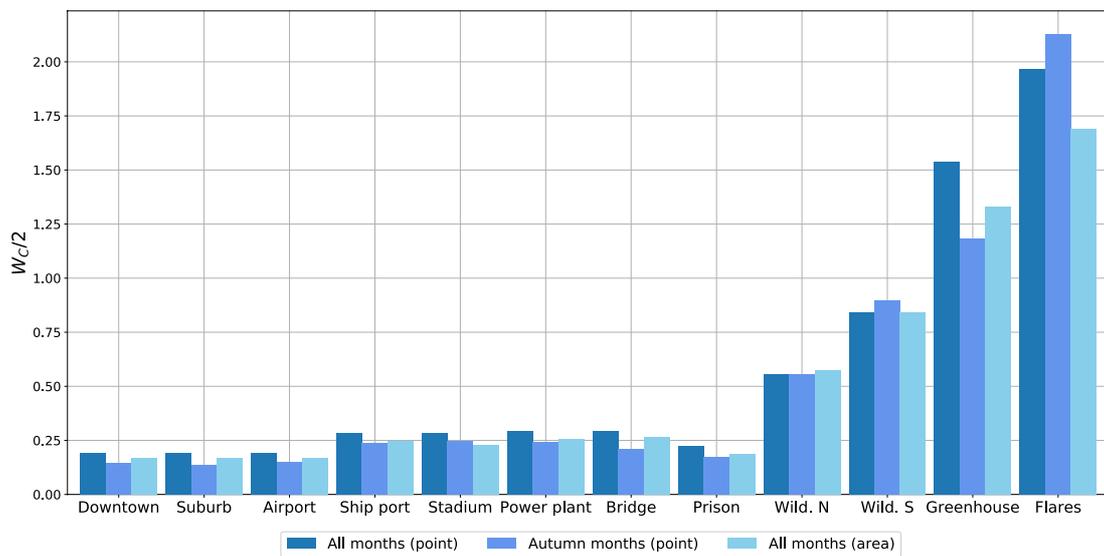


Figure S1: Typical monthly variation in observed radiance for each class, for the three different analyses: using all months (left), using only September, October, and November (center), and using the central pixel and the 4 surrounding pixels (right). The variation $W_c/2$ is expressed as a percentage of the mean, and is roughly analogous to one standard deviation (see main text).

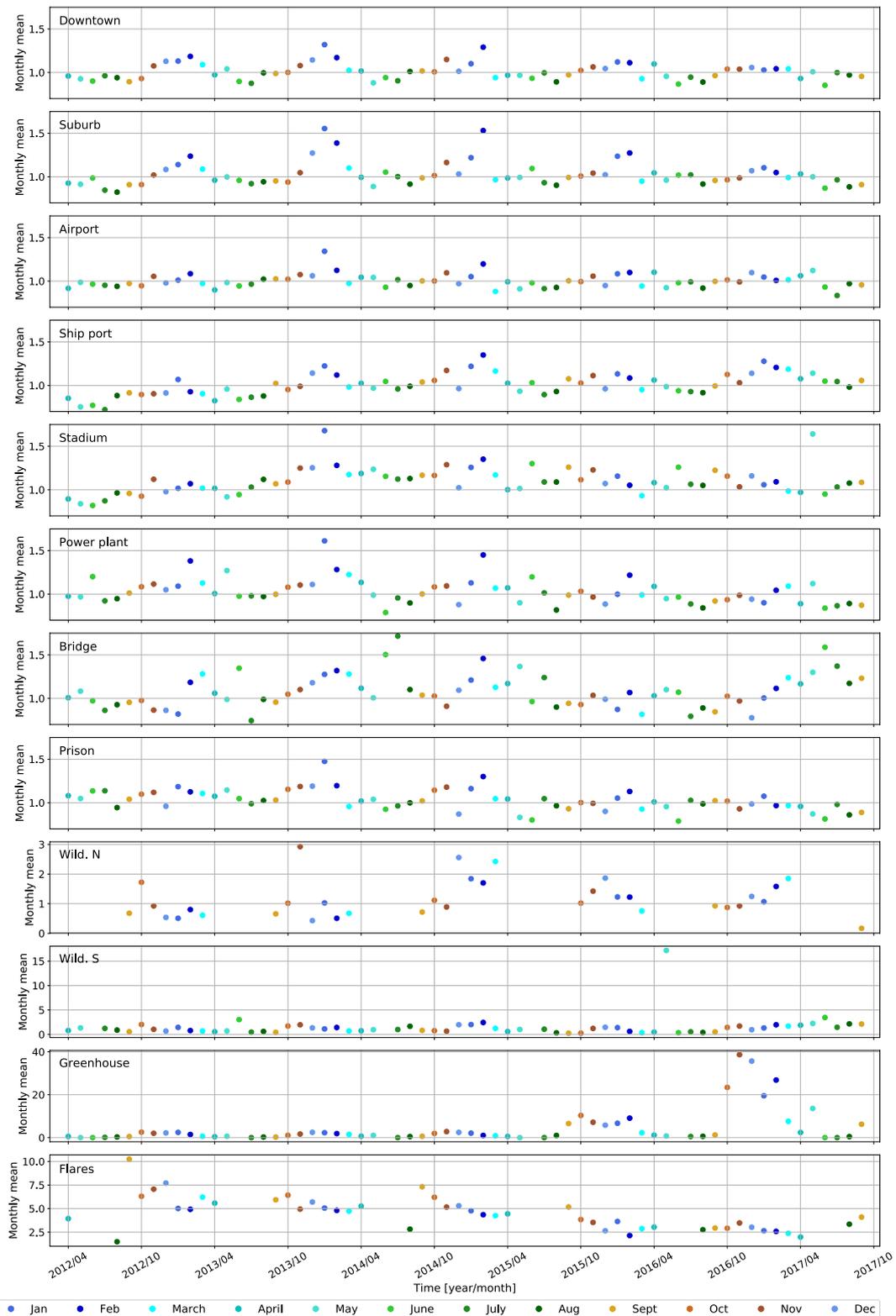


Figure S2: Class trends in light emission from April 2012 to September 2017. For each site, the ratio of the month to the site’s median was calculated, and the mean value for a given class is plotted. Note that high latitude sites do not have data during the summer months, and that the vertical scale is different for the bottom four plots. The seasonal snow cycle is clear: the brightest values are in January 2014, which was unusually cold and snowy. The bright value in the southern wilderness area in May 2016 is presumably due to a wildfire.

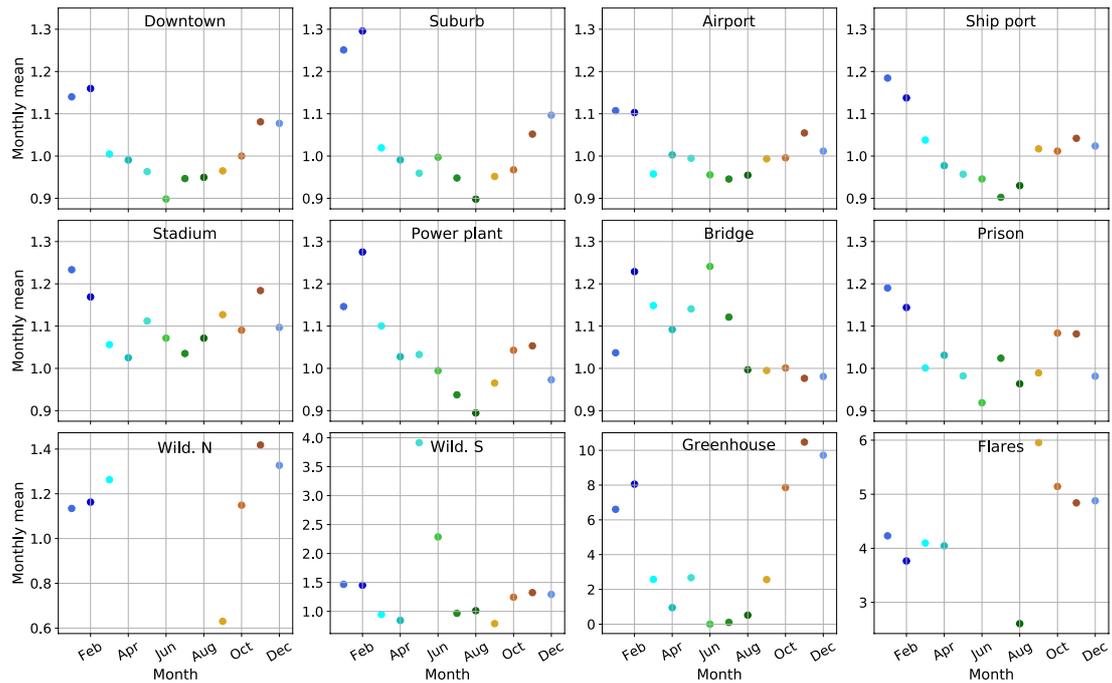


Figure S3: Average annual trends in light emission from each class. The data are the average for each month from figure S2. Note that northern sites do not have DNB data during the summer months, and the vertical scale is different for the bottom row of plots. The bright value in the southern wilderness areas in May is presumably due to a wildfire.

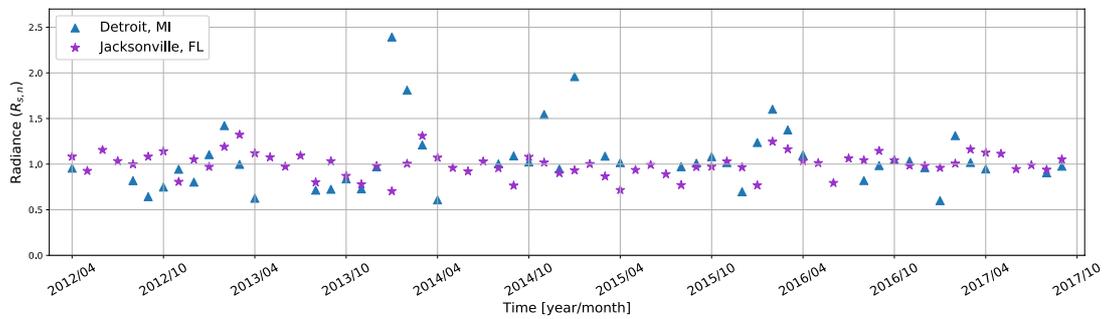


Figure S4: Lighting trend for the suburban location in northern (Detroit) and southern (Jacksonville) cities, relative to the median radiance of the site. Detroit frequently has very large increases in radiance in winter months due to the presence of snow, the brightest value was in the exceptionally cold month of January, 2014.