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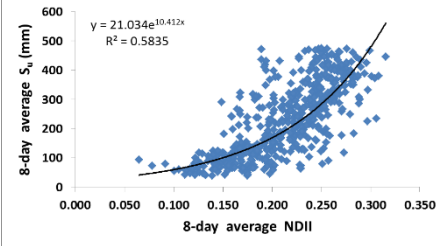
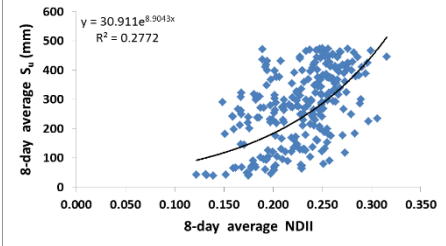
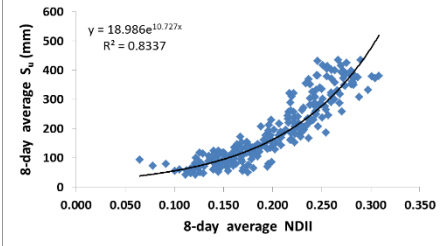
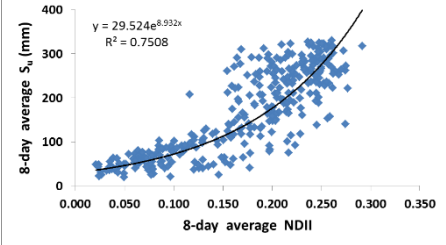
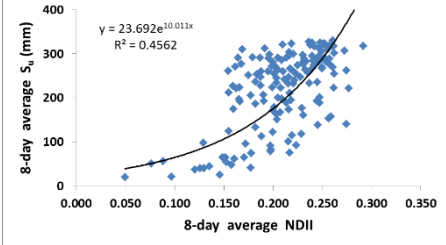
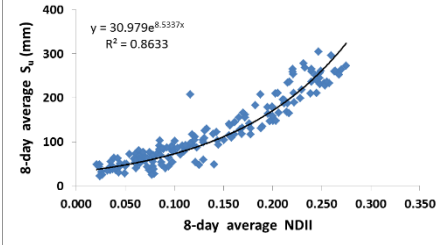
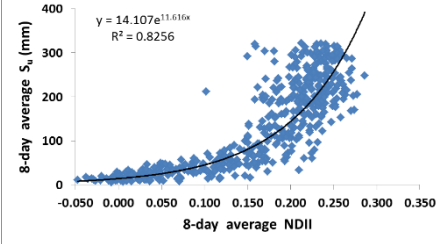
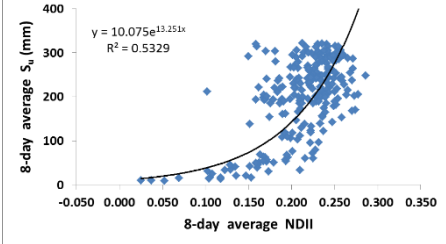
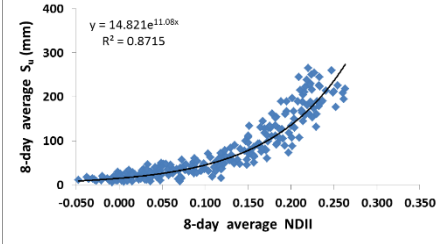
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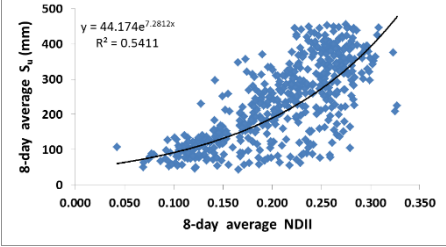
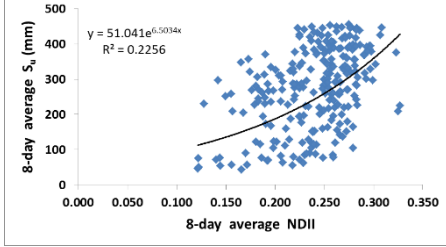
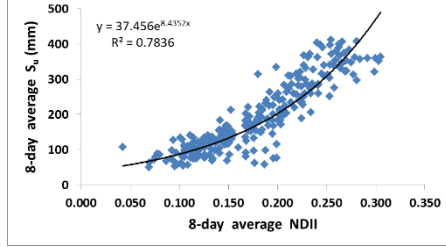
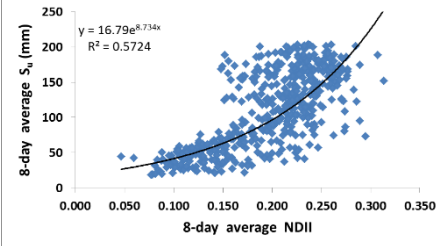
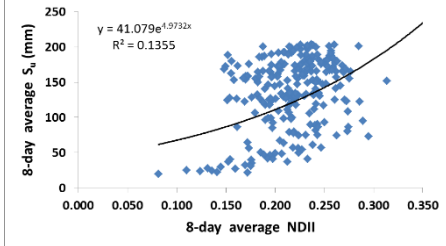
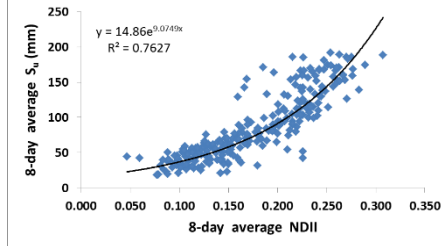
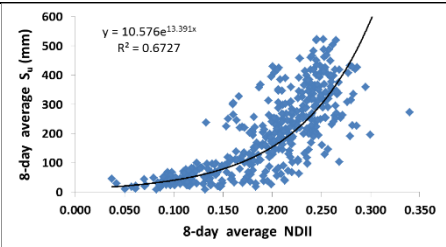
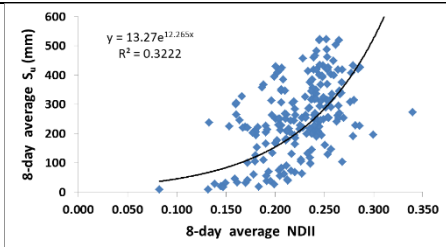
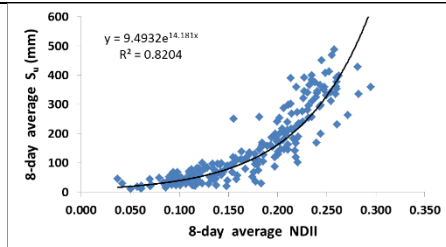
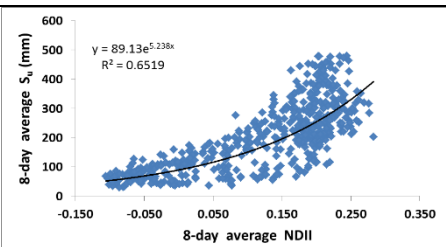
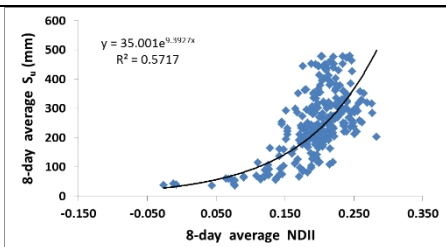
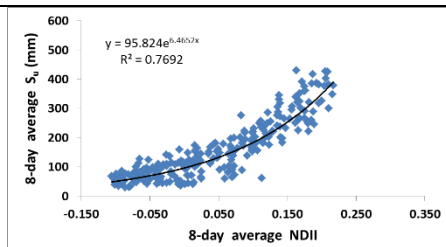
Comparing the Normalized Difference Infrared Index (NDII) with root zone storage in a lumped conceptual model

Nutchanart Sriwongsitanon et al.

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Runoff Station	Annual	Wet Season	Dry Season
P.4A	 <p>8-day average S_u (mm)</p> <p>$y = 21.034e^{10.412x}$ $R^2 = 0.5835$</p> <p>8-day average NDII</p>	 <p>8-day average S_u (mm)</p> <p>$y = 30.911e^{8.9043x}$ $R^2 = 0.2772$</p> <p>8-day average NDII</p>	 <p>8-day average S_u (mm)</p> <p>$y = 18.986e^{10.722x}$ $R^2 = 0.8337$</p> <p>8-day average NDII</p>
P.14	 <p>8-day average S_u (mm)</p> <p>$y = 29.524e^{8.932x}$ $R^2 = 0.7508$</p> <p>8-day average NDII</p>	 <p>8-day average S_u (mm)</p> <p>$y = 23.692e^{10.013x}$ $R^2 = 0.4562$</p> <p>8-day average NDII</p>	 <p>8-day average S_u (mm)</p> <p>$y = 30.979e^{8.5337x}$ $R^2 = 0.8633$</p> <p>8-day average NDII</p>
P.20	 <p>8-day average S_u (mm)</p> <p>$y = 14.107e^{11.616x}$ $R^2 = 0.8256$</p> <p>8-day average NDII</p>	 <p>8-day average S_u (mm)</p> <p>$y = 10.075e^{13.251x}$ $R^2 = 0.5329$</p> <p>8-day average NDII</p>	 <p>8-day average S_u (mm)</p> <p>$y = 14.821e^{11.08x}$ $R^2 = 0.8715$</p> <p>8-day average NDII</p>

P.21	 <p>8-day average S_8 (mm)</p> <p>$y = 44.174e^{7.2812x}$ $R^2 = 0.5411$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 51.041e^{6.5034x}$ $R^2 = 0.2256$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 37.456e^{8.4352x}$ $R^2 = 0.7836$</p> <p>8-day average NDII</p>
P.24A	 <p>8-day average S_8 (mm)</p> <p>$y = 16.79e^{6.734x}$ $R^2 = 0.5724$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 41.079e^{1.9732x}$ $R^2 = 0.1355$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 14.86e^{9.0749x}$ $R^2 = 0.7627$</p> <p>8-day average NDII</p>
P.71	 <p>8-day average S_8 (mm)</p> <p>$y = 10.576e^{13.391x}$ $R^2 = 0.6727$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 13.27e^{12.265x}$ $R^2 = 0.3222$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 9.4932e^{14.181x}$ $R^2 = 0.8204$</p> <p>8-day average NDII</p>
P.76	 <p>8-day average S_8 (mm)</p> <p>$y = 89.13e^{5.2238x}$ $R^2 = 0.6519$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 35.001e^{9.3927x}$ $R^2 = 0.5717$</p> <p>8-day average NDII</p>	 <p>8-day average S_8 (mm)</p> <p>$y = 95.824e^{5.4657x}$ $R^2 = 0.7692$</p> <p>8-day average NDII</p>

P.77

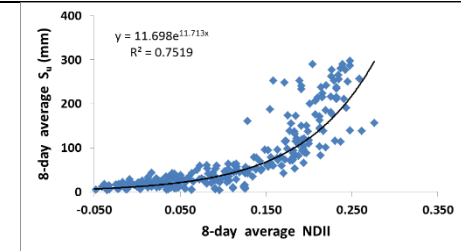
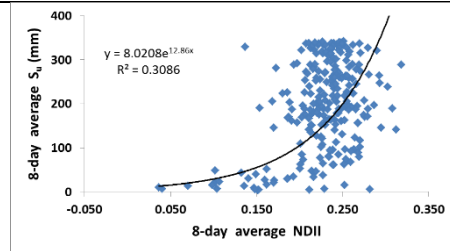
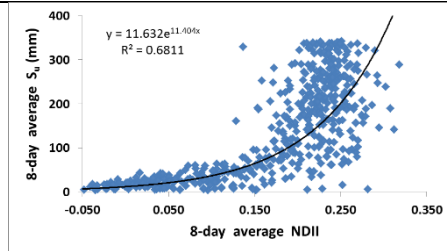
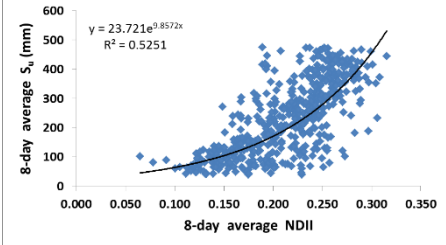
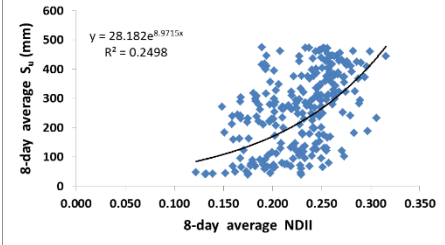
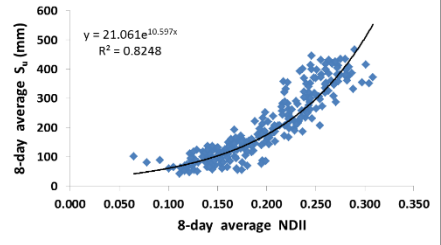
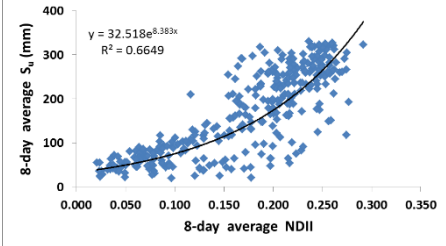
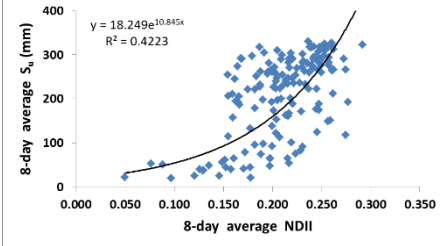
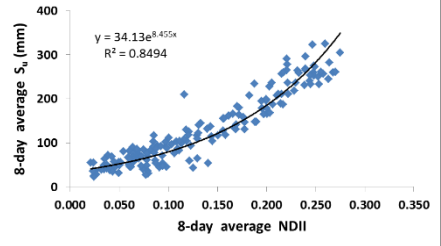
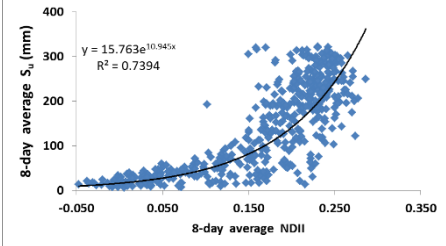
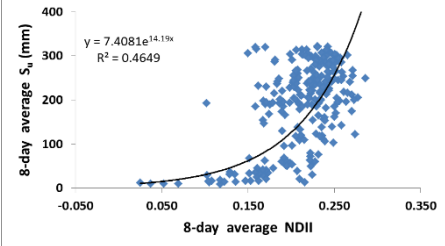
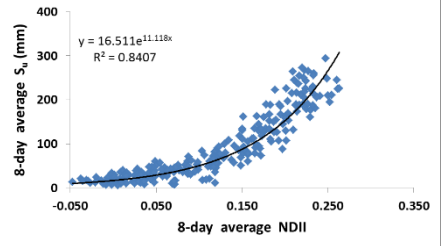
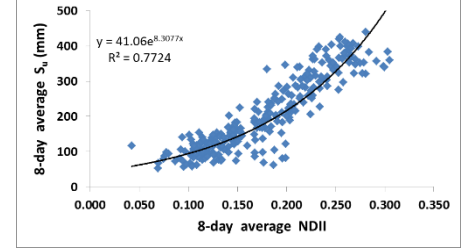
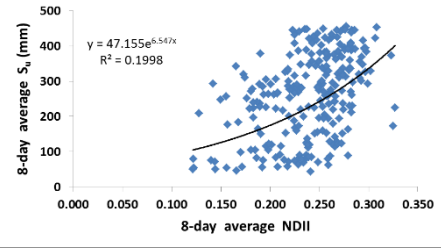
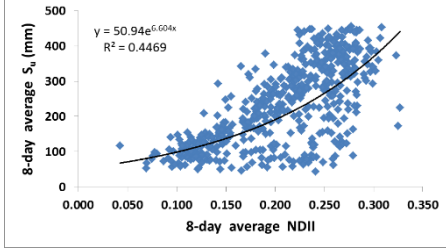


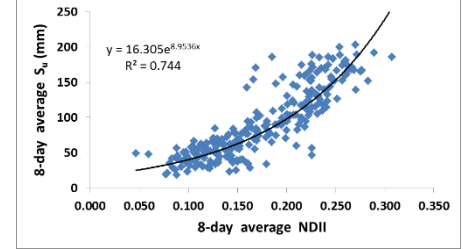
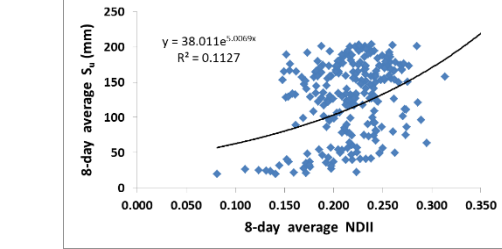
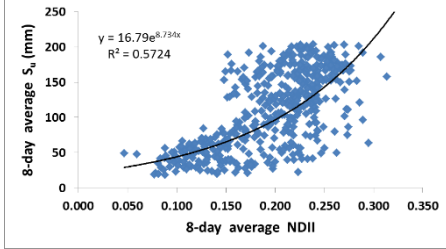
Figure S1. Scatter plots between the 8-days-lagged average NDII and the average root zone moisture storage (S_u) for 8 sub-basins controlled by runoff stations.

Runoff station	Annual	Wet Season	Dry Season
P.4A	 <p>8-day average S_w (mm)</p> <p>$y = 23.721e^{0.8572x}$ $R^2 = 0.5251$</p> <p>8-day average NDII</p>	 <p>8-day average S_w (mm)</p> <p>$y = 28.182e^{0.9715x}$ $R^2 = 0.2498$</p> <p>8-day average NDII</p>	 <p>8-day average S_w (mm)</p> <p>$y = 21.061e^{10.597x}$ $R^2 = 0.8248$</p> <p>8-day average NDII</p>
P.14	 <p>8-day average S_w (mm)</p> <p>$y = 32.518e^{8.383x}$ $R^2 = 0.6649$</p> <p>8-day average NDII</p>	 <p>8-day average S_w (mm)</p> <p>$y = 18.249e^{10.845x}$ $R^2 = 0.4223$</p> <p>8-day average NDII</p>	 <p>8-day average S_w (mm)</p> <p>$y = 34.13e^{8.455x}$ $R^2 = 0.8494$</p> <p>8-day average NDII</p>
P.20	 <p>8-day average S_w (mm)</p> <p>$y = 15.763e^{10.943x}$ $R^2 = 0.7394$</p> <p>8-day average NDII</p>	 <p>8-day average S_w (mm)</p> <p>$y = 7.4081e^{14.19x}$ $R^2 = 0.4649$</p> <p>8-day average NDII</p>	 <p>8-day average S_w (mm)</p> <p>$y = 16.511e^{11.118x}$ $R^2 = 0.8407$</p> <p>8-day average NDII</p>

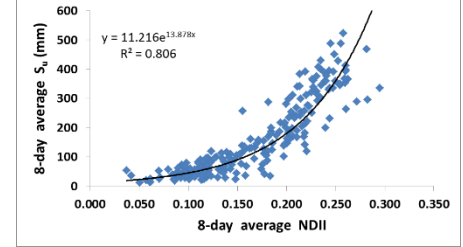
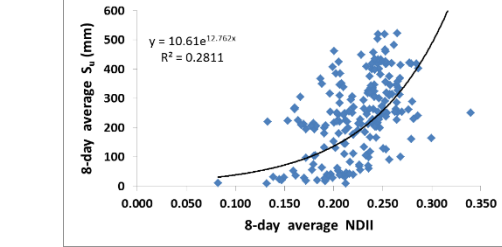
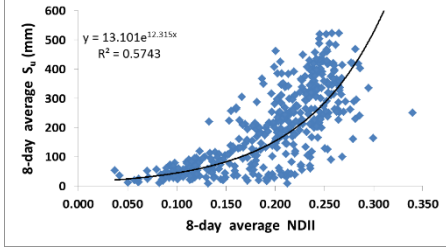
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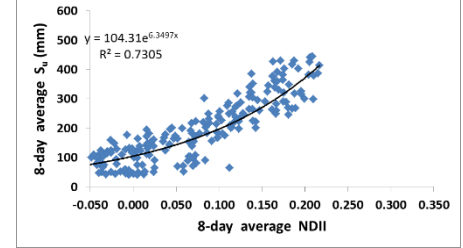
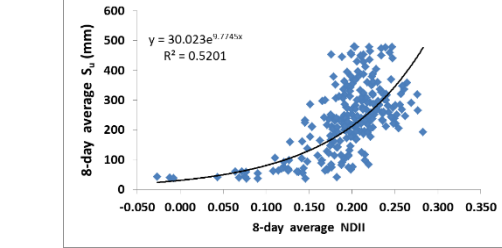
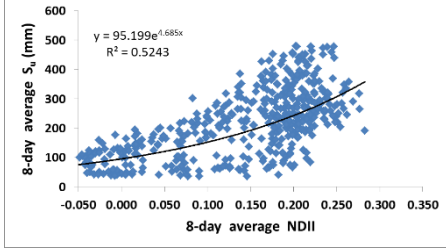
P.24A



P.71



P.76



P.77

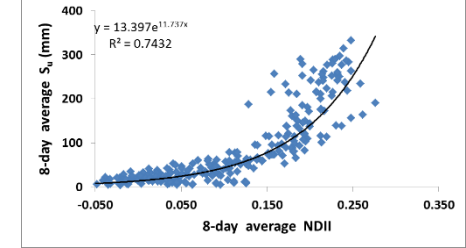
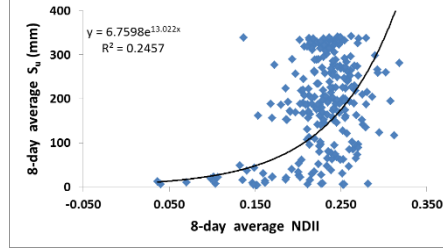
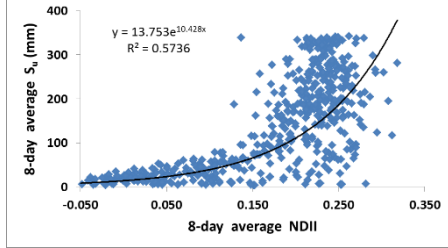
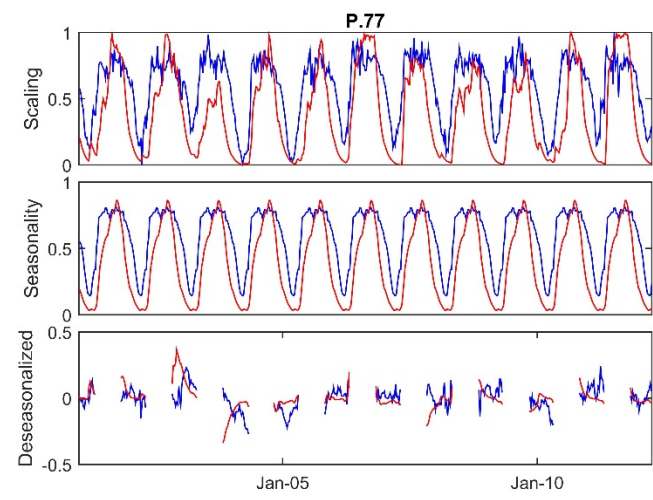
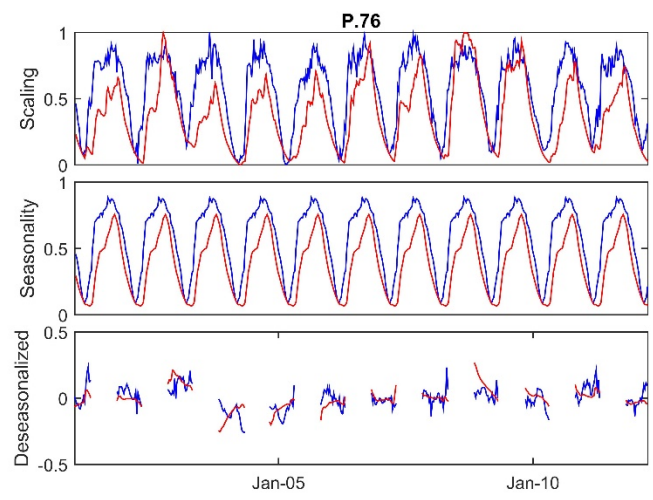
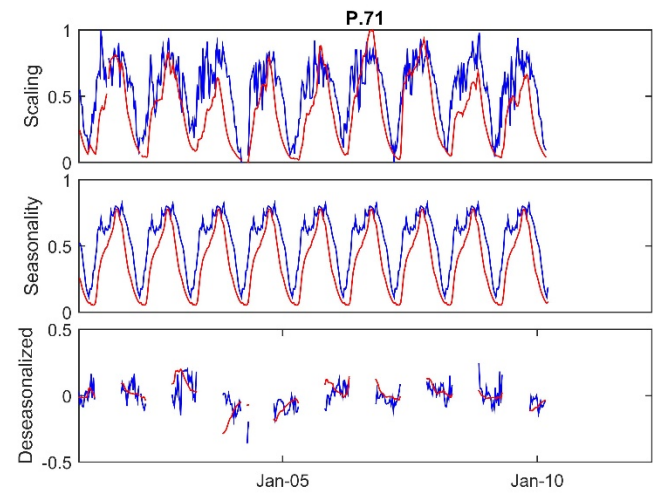
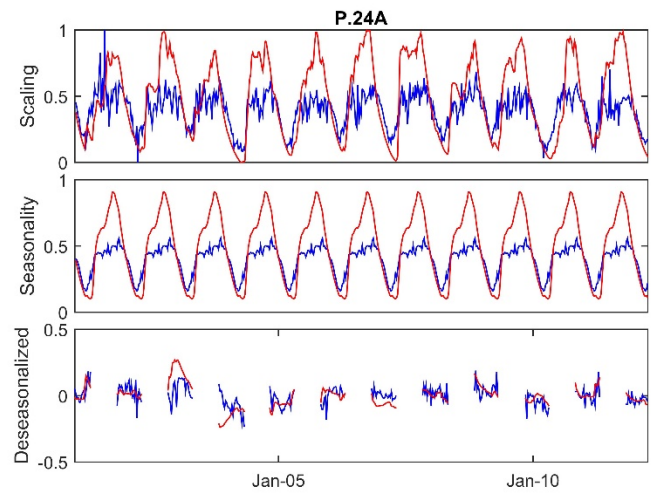


Figure S2. Scatter plots between the 16-days-lagged average NDII and the average root zone moisture storage (S_u) for 8 sub-basins controlled by runoff stations.



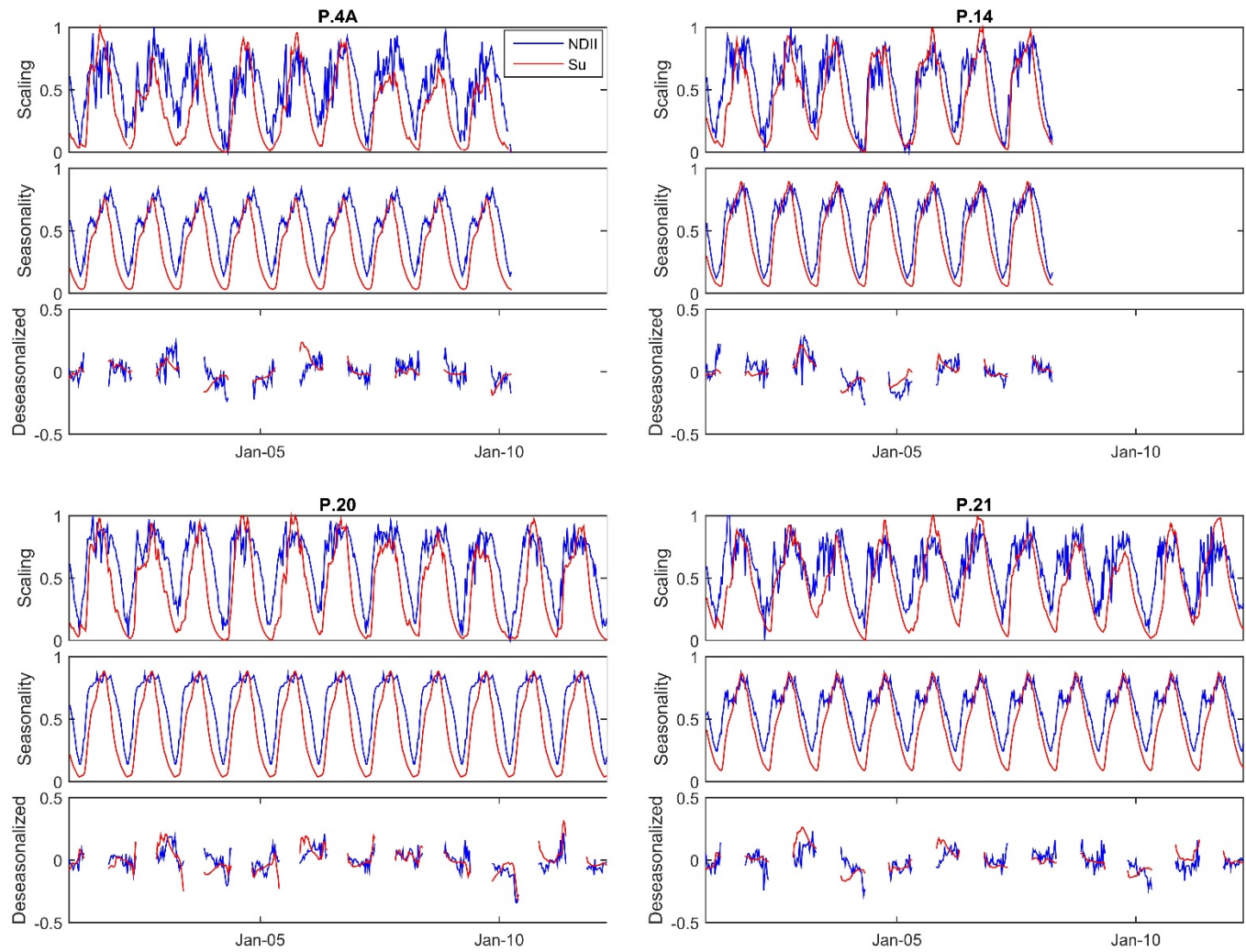


Figure S3. Scaled, seasonality and deseasonalized time series of the 8-days-averaged NDII values compared to the 8-days-averaged root zone moisture storage (Su) in 8 runoff stations.