1, This file is for testing the daily version, compared to the Monthly PnET-CN-C1 version.

2, climate is from HB, 1978-2008 HQ daily measurements.

3, comparsion:

3.1, Change the decomposition from monthly to daily and using the average bottom light effect, results are in Daily-CN\_v1.xlsx. this change does not result big different for the model results, compared to C1.

3.2 As the monthly is doing well, daily and monthly results from the very daily version. Results are in Daily-Mon\_v1.xlsx. Large discrepancy occurs for folnpp, gpp, woodnpp, etc. it is mostly due to underestimated avgPCBM because when high par in clear days can excess the canopy psn capacity, the excess does not account for avgPCBM and low par in overcast days can weigh the value very low because PAR is much lower than monthly average.

3.3 photosynthesis routine expends to over 50 layers to take account all potential for maximum lai to calculate avgPCBM. And testing AmaxFrac.

To set fix folN and Folmass, GPP and avgPCBM are lower.

Results are in Daily-Mon\_v2-AmaxFrac.xlsx.

3.4 increased AmaxFrac to get correct avgPCBM and psn without water stress.

Gpp is still lower due to lower waterstress avgDwater, which was caused by daily step for water process. When Par is lower in overcast days, psn is lower and then potential transpiration is lower and sometimes precipitation variable, water stress is comparable for monthly version. When par is high in clear days, psn is high and pet is high while there is not precipitation available. It makes the water stress higher than the monthly average.

Snow/rain determination function revised.

Results are in Daily-Mon\_v2-AmaxFrac2.xlsx.

3.5 Daily-Mon\_v2.xlsx contains results using new AmaxFrac.

3.6 Daily-Mon\_v2-AmaxFrac\_FolRespFrac. xlsx contains results using new AmaxFrac and scaled foliar auto respiration.