

NACP Site: Terrestrial Biosphere Model and Aggregated Flux Data in Standard Format

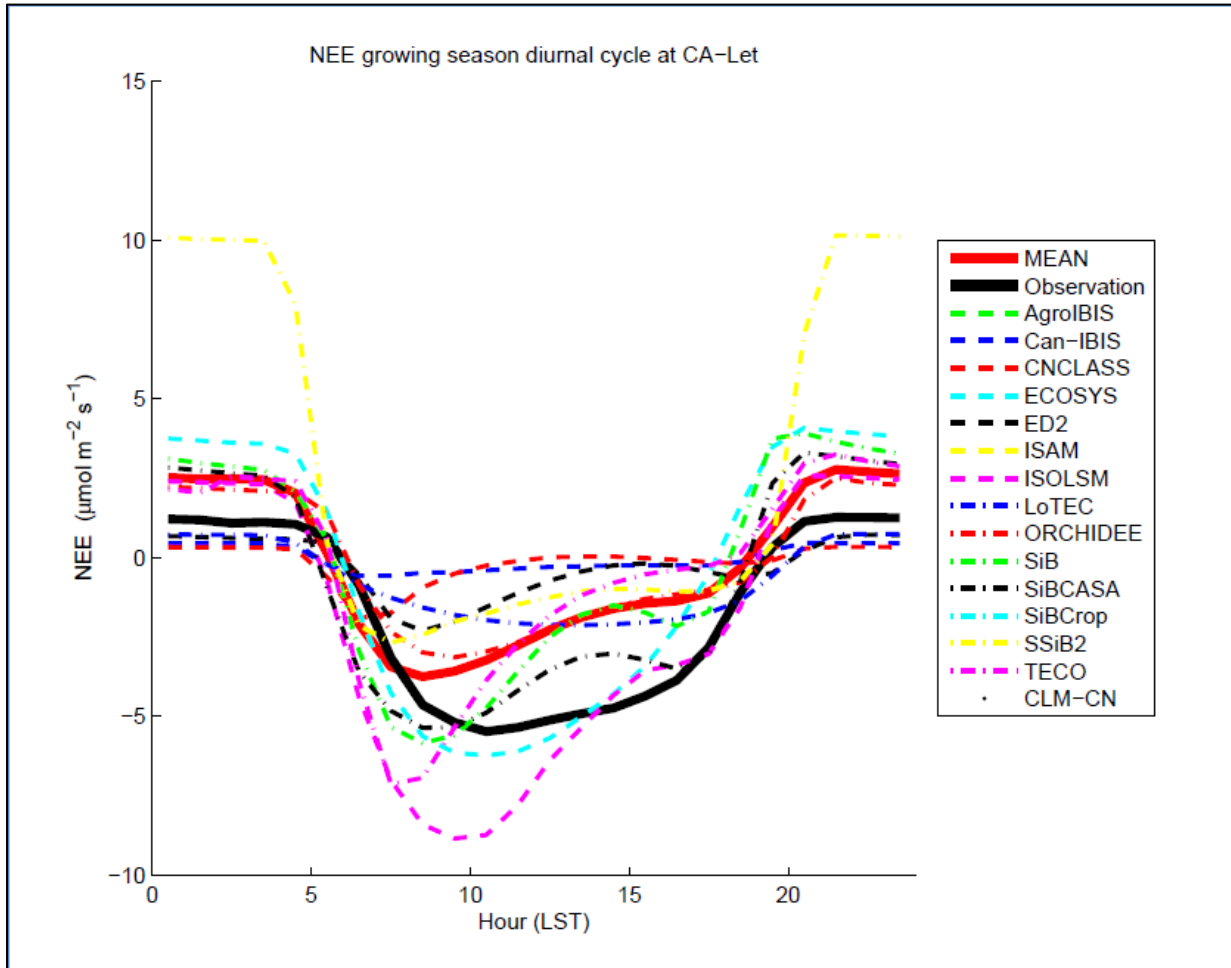
Plot File Readme -- Description of the model output plots.

This data set provides standardized output variables for gross primary productivity (GPP), net ecosystem exchange (NEE), leaf area index (LAI), ecosystem respiration (Re), latent heat flux (LE), and sensible heat flux (H) from 24 terrestrial biosphere models for 47 eddy covariance flux tower sites in North America.

Plots displaying the diurnal growing season and annual seasonal averages for the six output variables for each of the 47 modeled sites are included as companion files. See the companion file, [figures.zip](#).

These examples are typical of the many plots provided in figures.zip and will assist you in interpreting the plots and legends.

Example of plots displaying the diurnal growing season averages for the six output variables for each of the 47 modeled sites.

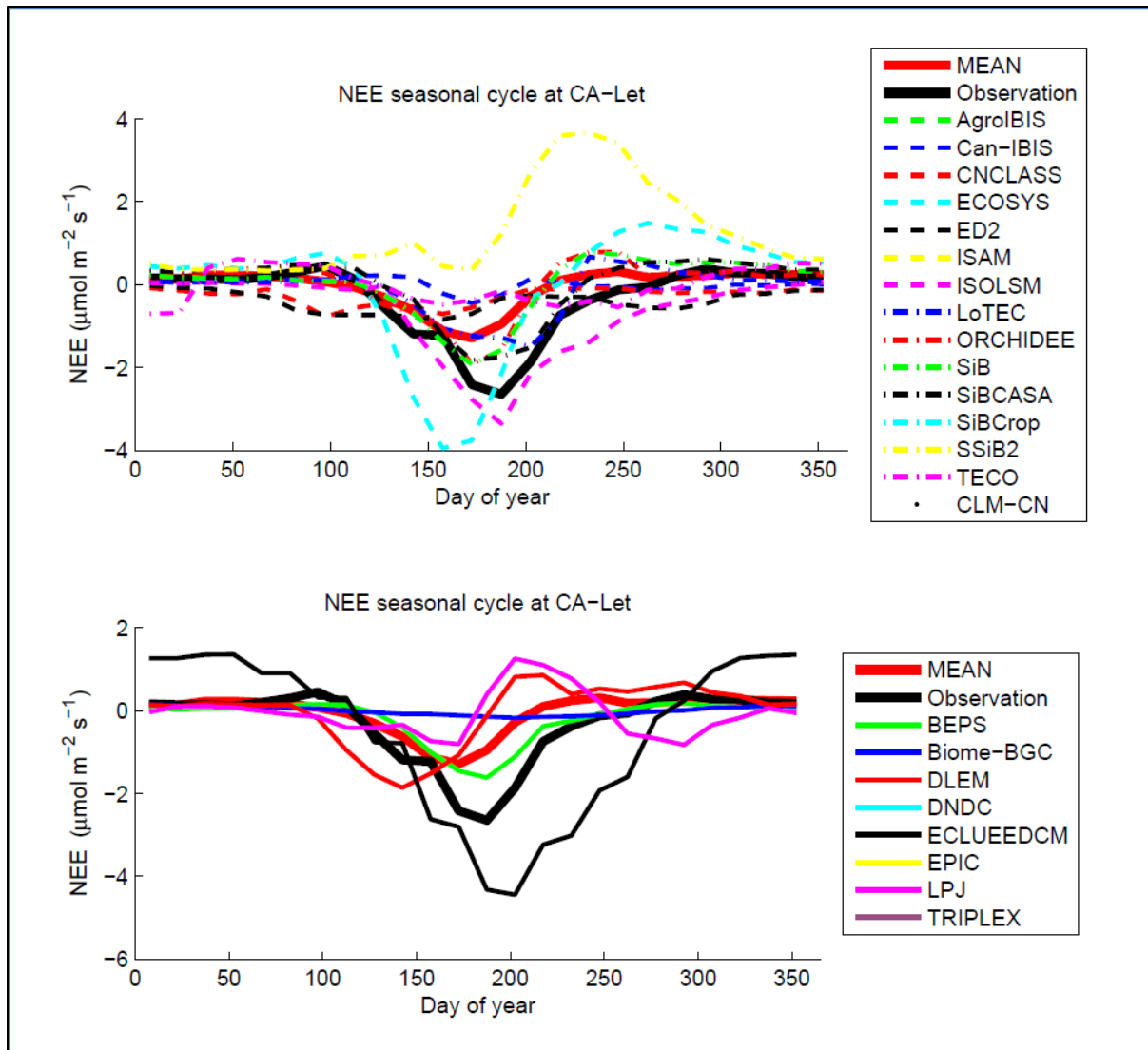


This **plot shows the modeled output** for the diurnal cycle of growing season (defined as June, July and August) net ecosystem exchange (NEE) at the Lethbridge grassland site in Alberta, Canada.

- Plotted values are the outputs from the 11 models that submitted hourly or finer temporal resolution data for the site. [Recall that not all models submitted data for all sites and variables -- not all models will have plotted data for a given site or variable.]
- Also shown are the ensemble mean of these 11 models (thick red line) and the gap-filled observations from the eddy covariance site (thick black line).

The legend includes an entry for each of the 15 participating models; however, 4 models that did not submit results for this site are not represented on the plot. Models that reported a coarser temporal resolution (e.g. daily or monthly) are not included in either the legend or the plot.

Example of plots displaying the annual seasonal averages for the six output variables for each of the 47 modeled sites.



This **plot shows the modeled output** for the seasonal cycle of net ecosystem exchange (NEE) at the Lethbridge grassland site in Alberta, Canada.

- **In the top panel**, 11 models with hourly or finer temporal resolution are plotted. [Recall that not all models submitted data for all sites and variables -- not all models will have plotted data for a given site or variable.]
- Also shown are the ensemble mean of *all* 15 models that submitted results for this site (thick red line) and the gap-filled observations from the eddy covariance site (thick black line).
- **The top panel legend includes** an entry for each participating model that submitted hourly or finer temporal resolution; however, 4 models that did not submit results for this site are not represented on the plot.

- **In the bottom panel**, 5 models with daily or coarser temporal resolution are plotted.
- Also shown are the ensemble mean of all 15 models (thick red line) and the gap-filled observations from the eddy covariance site (thick black line).
- **The bottom panel legend includes** an entry for each participating model that submitted daily or coarser temporal resolution; however, 3 models that did not submit results for this site are not represented on the plot.

Supplemental Information:

The Protocol for the NACP Site-level Interim Synthesis Model-Data Comparison (Site Synthesis), Version 7, is included as a companion file. See [site_synthesis_protocol_v7.pdf](#).

Plots displaying the diurnal growing season and annual seasonal averages for the six output variables for each of the 47 modeled sites are included as companion files. See the companion file, [figures.zip](#).

Data Citation:

Cite this data set as follows:

Ricciuto, D.M., K. Schaefer, P.E. Thornton, K. Davis, R.B. Cook, Shishi Liu, R. Anderson, M.A. Arain, I. Baker, J.M. Chen, M. Dietze, R. Grant, C. Izaurralde, A.K. Jain, A.W. King, C. Kucharik, Shuguang Liu, E. Lokupitiya, Y. Luo, C. Peng, B. Poulter, D. Price, W. Riley, A. Sahoo, H. Tian, C. Tonitto, and H. Verbeeck. 2013. NACP Site: Terrestrial Biosphere Model and Aggregated Flux Data in Standard Format. Data set. Available on-line [<http://daac.ornl.gov>] from Oak Ridge National Laboratory Distributed Active Archive Center, Oak Ridge, Tennessee, USA. <http://dx.doi.org/10.3334/ORNLDAAAC/1183>