

Appendix

TABLE A1. Ranges [min max] of simulated GPP/NEP ($\text{gC m}^{-2} \text{mon}^{-1}$) in one-year, two-year, and three-year calibration experiments.

	One-year	Two-year	Three-year
Deciduous broadleaf forest			
GPP	[0 471]	[0 451]	[0 458]
NEP	[-106 231]	[-111 213]	[-110 228]
Coniferous forest			
GPP	[0 350]	[0 332]	[0 345]
NEP	[-44 134]	[-36 123]	[-32 127]
Grassland			
GPP	[0 277]	[0 290]	[0 288]
NEP	[-30 39]	[-38 41]	[-28 39]
Shrubland			
GPP	[0 245]	[0 232]	[0 236]
NEP	[-34 74]	[-37 80]	[-37 85]
Boreal forest			
GPP	[0 258]	[0 280]	[0 286]
NEP	[-65 190]	[-69 216]	[-75 222]

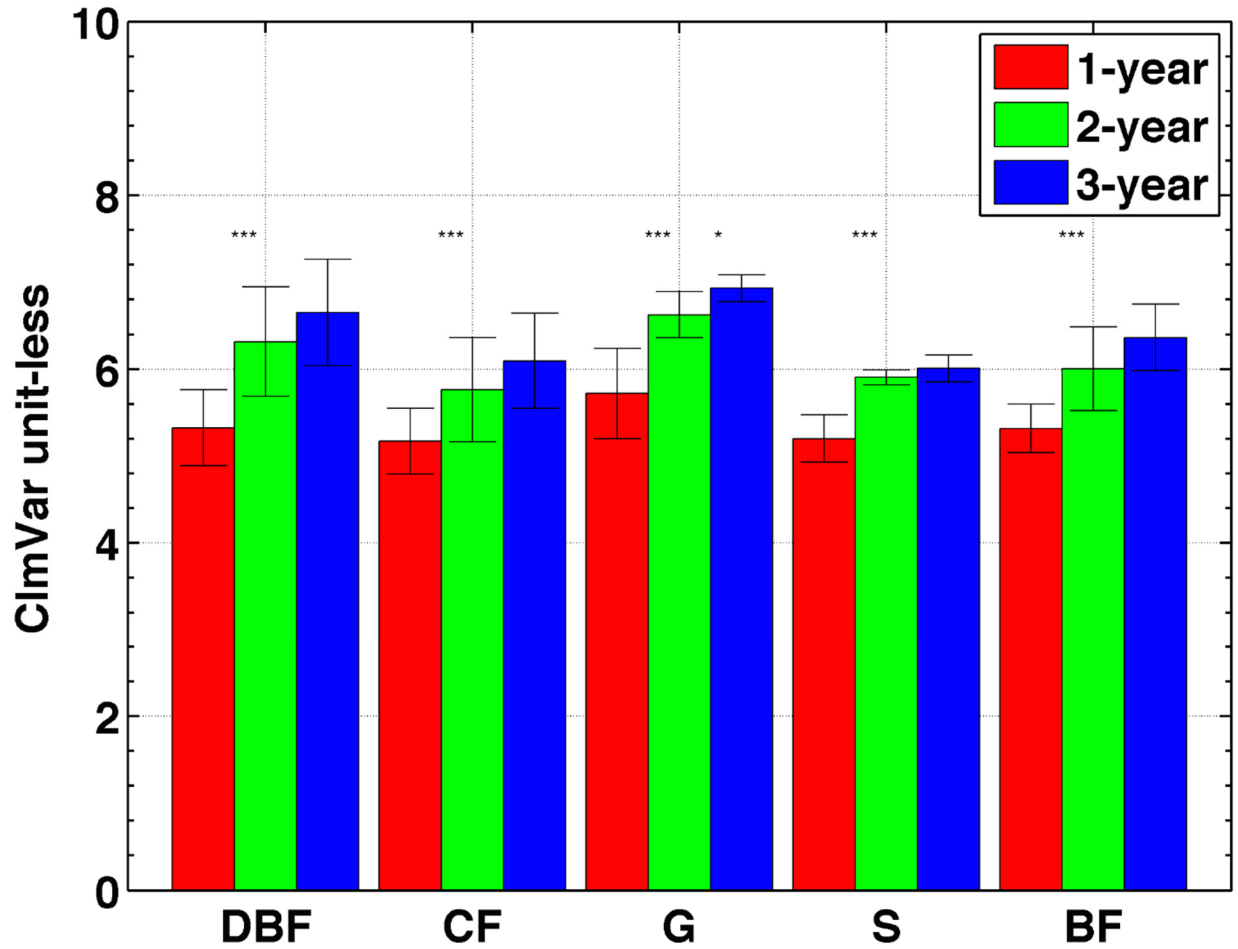


FIG. A1. A summary of calculated “ClimVar” for one-year, two-year, and three-year calibration experiments, including Deciduous Broadleaf Forest (DBF), Coniferous Forest (CF), Grassland (G), Shrubland (S) and Boreal Forest (BF). Student-t test was conducted to determine the significance of difference i.e., one-year versus two-year experiments (red bars versus green bars) and two-year versus three-year experiments (green bars versus blue bars). Significance of differences (***) $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, if not indicated with stars, there are no significant differences).

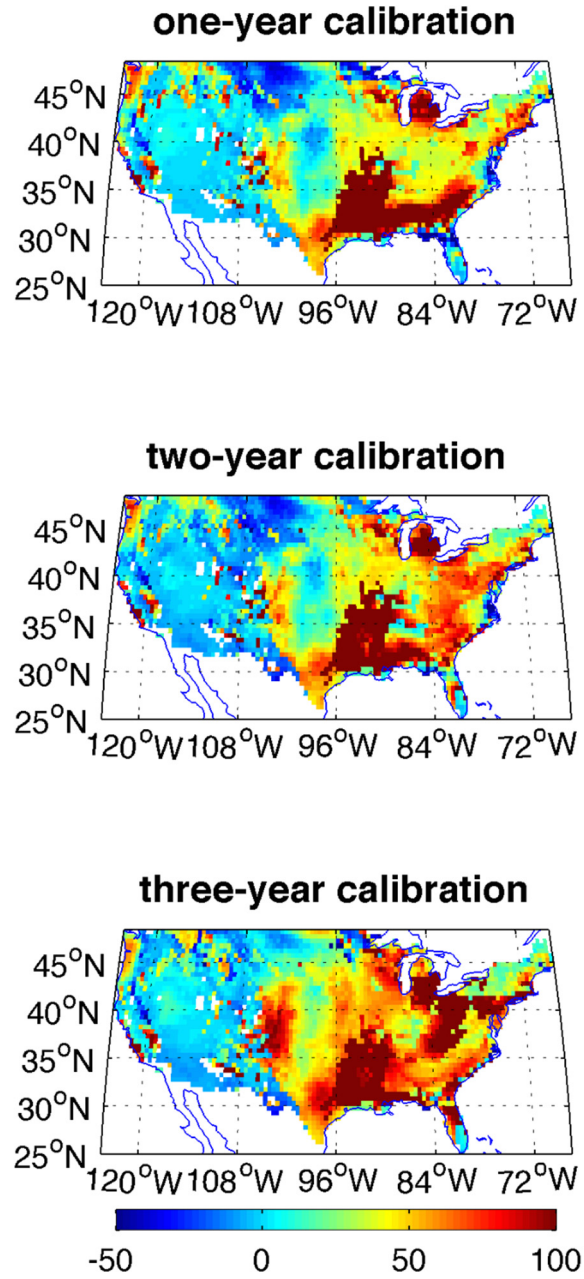


FIG. A2. Spatial pattern of U.S. NEP (gC m^{-2}), averaged over 2000-2008.