Figures for Hubbard Brook

There are three sets of figures

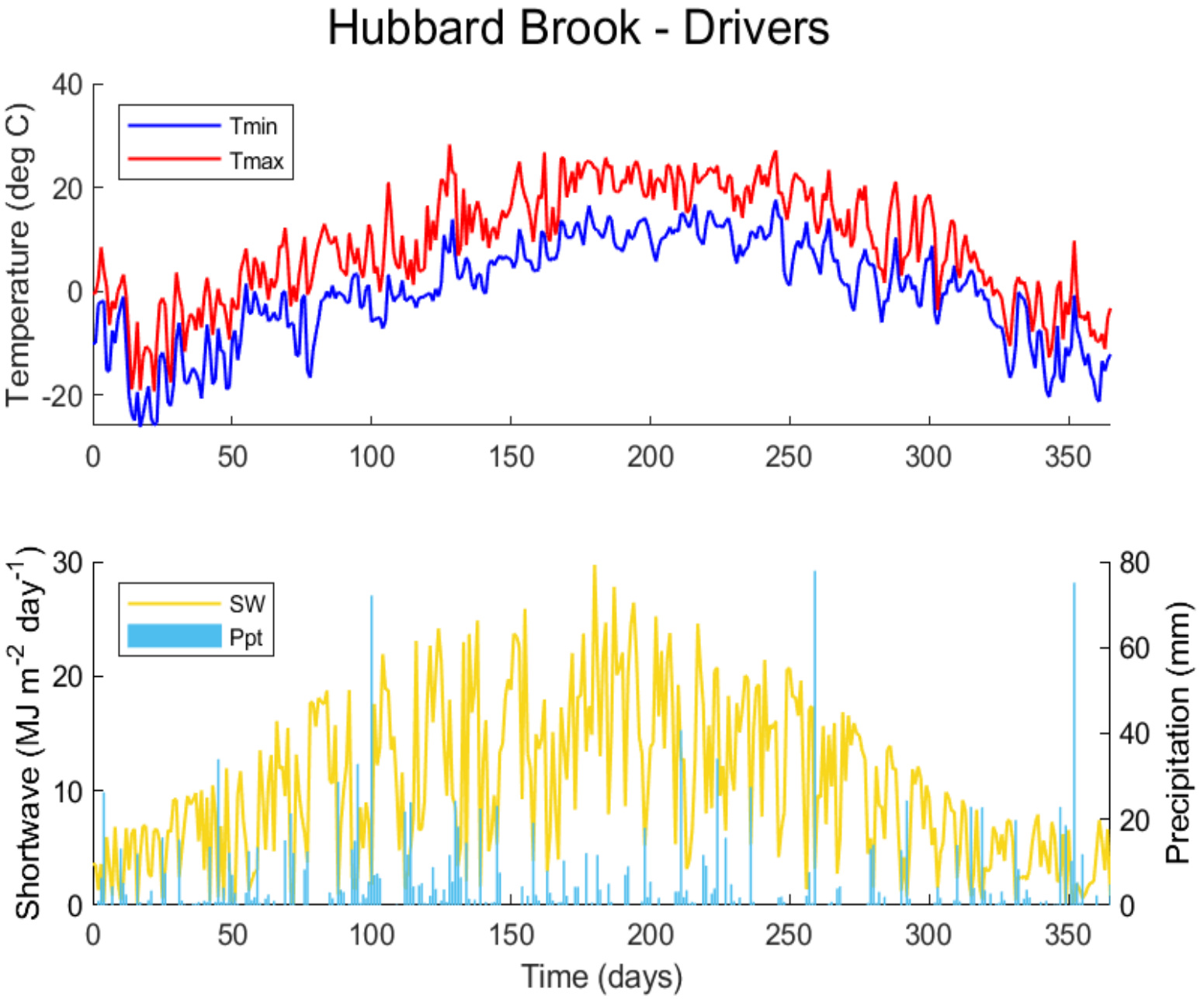
Steady state – Figures I and II

Climate treatments – Figure III

Disturbance treatments – Figure IV_1 and IV_2

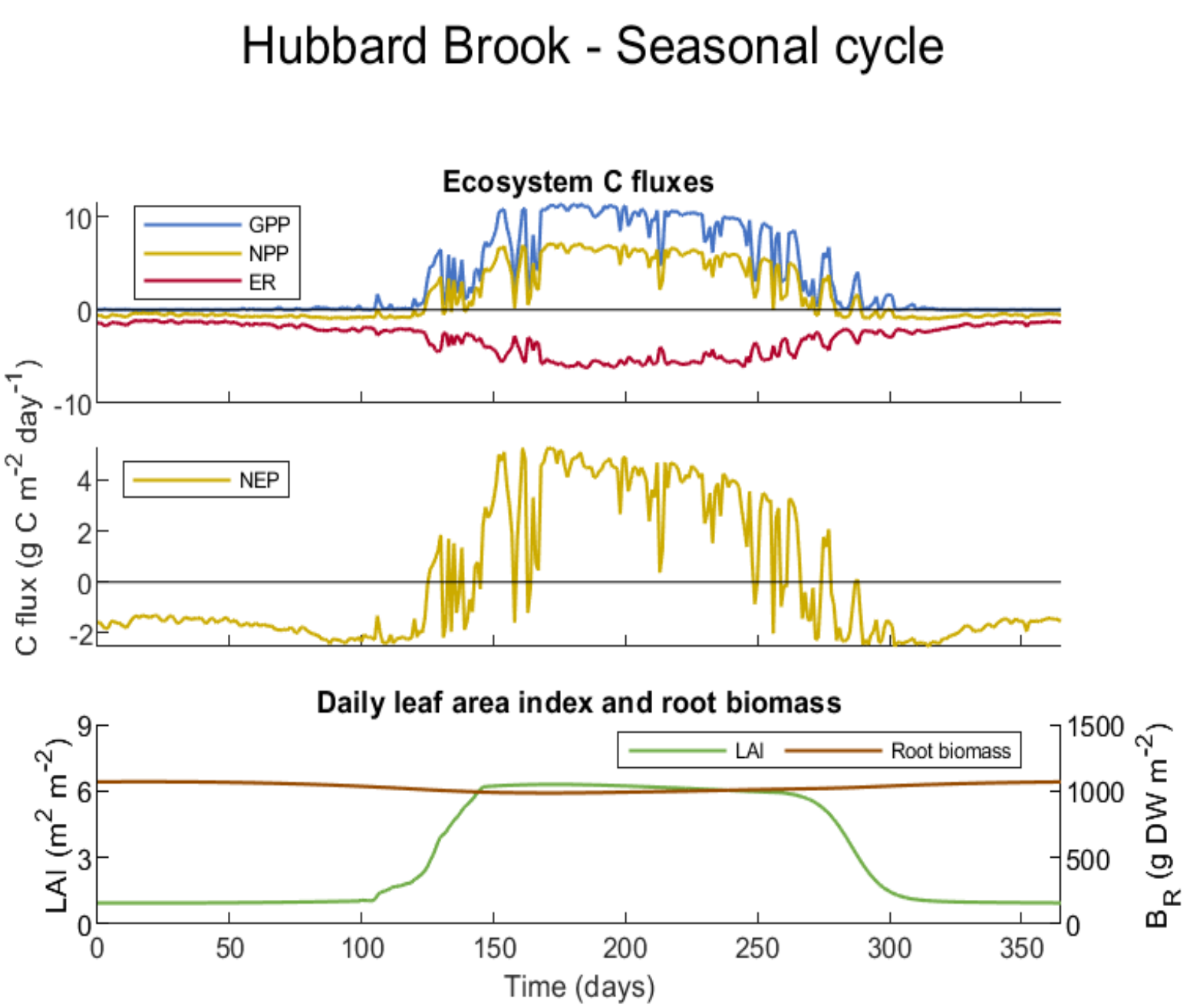
Figure captions are on the page after each figure

Fix annual cycle



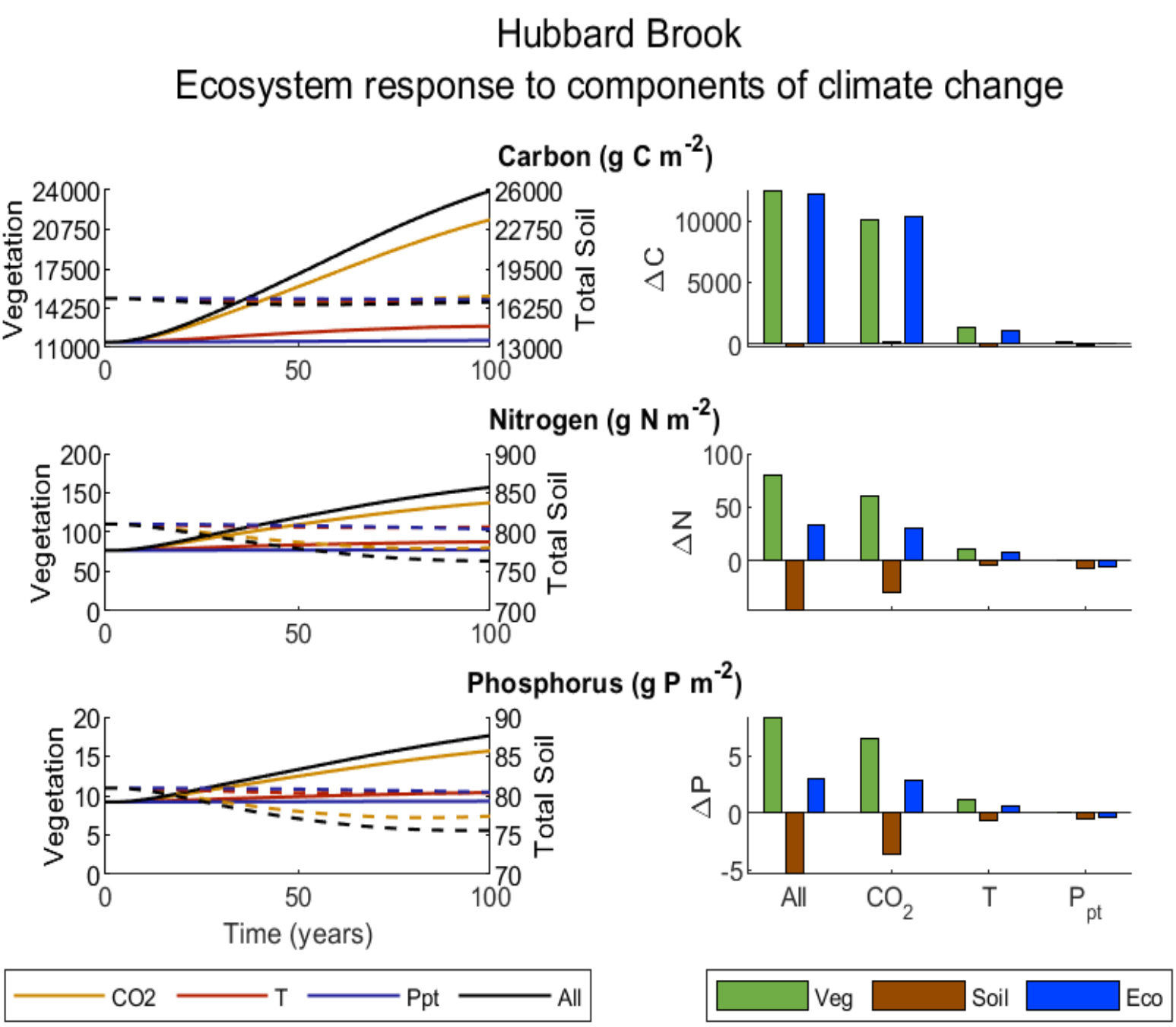
I.HBF.Drivers.png

Daily maximum and minimum air temperature (deg C), total shortwave radiation (MJ m^{-2} day^{-1}) and precipitation (mm H_2O) used for the steady state calibration.



II.HBF.Steady State.png

Seasonal pattern of photosynthesis (GPP), net primary production (NPP), ecosystem respiration (ER), net ecosystem production (NEP), leaf area index (LAI), and root biomass (BR) for one year with the model at steady state under the climate depicted in Fig 1. Units are g C m^{-2} day^{-1} for all carbon fluxes, m^2 m^{-2} for LAI and g DW m^{-2} for root biomass.

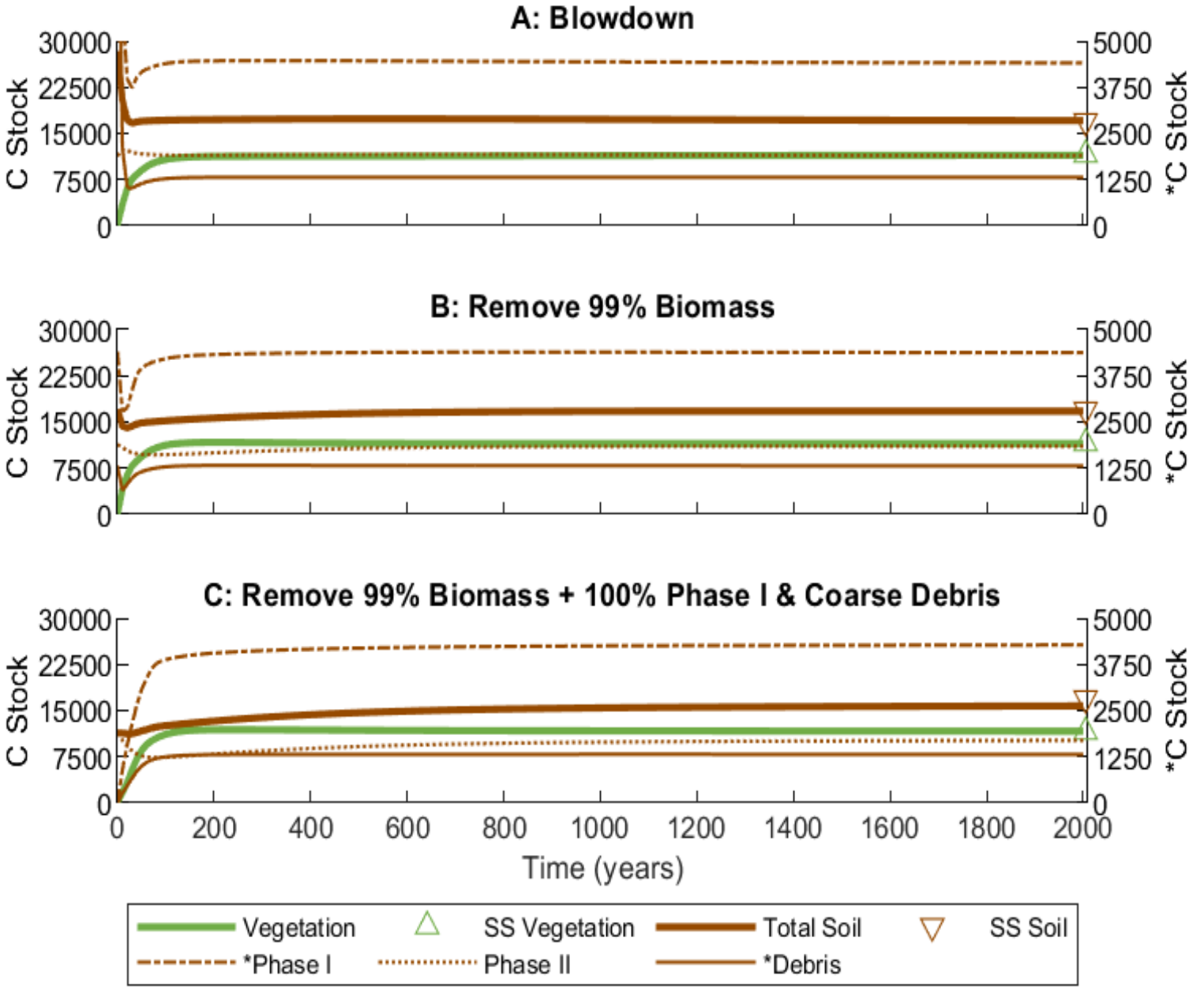

Hubbard Brook
Ecosystem response to components of climate change
Carbon (g C m-2)
Vegetation
Total Soil
ΔC
Nitrogen (g N m-2)
ΔN
Phosphorus (g P m-2)
ΔP
Time (years)
All
CO2
T
Ppt
Pt
Veg
Soil
Eco

III.HBF.Climate.png

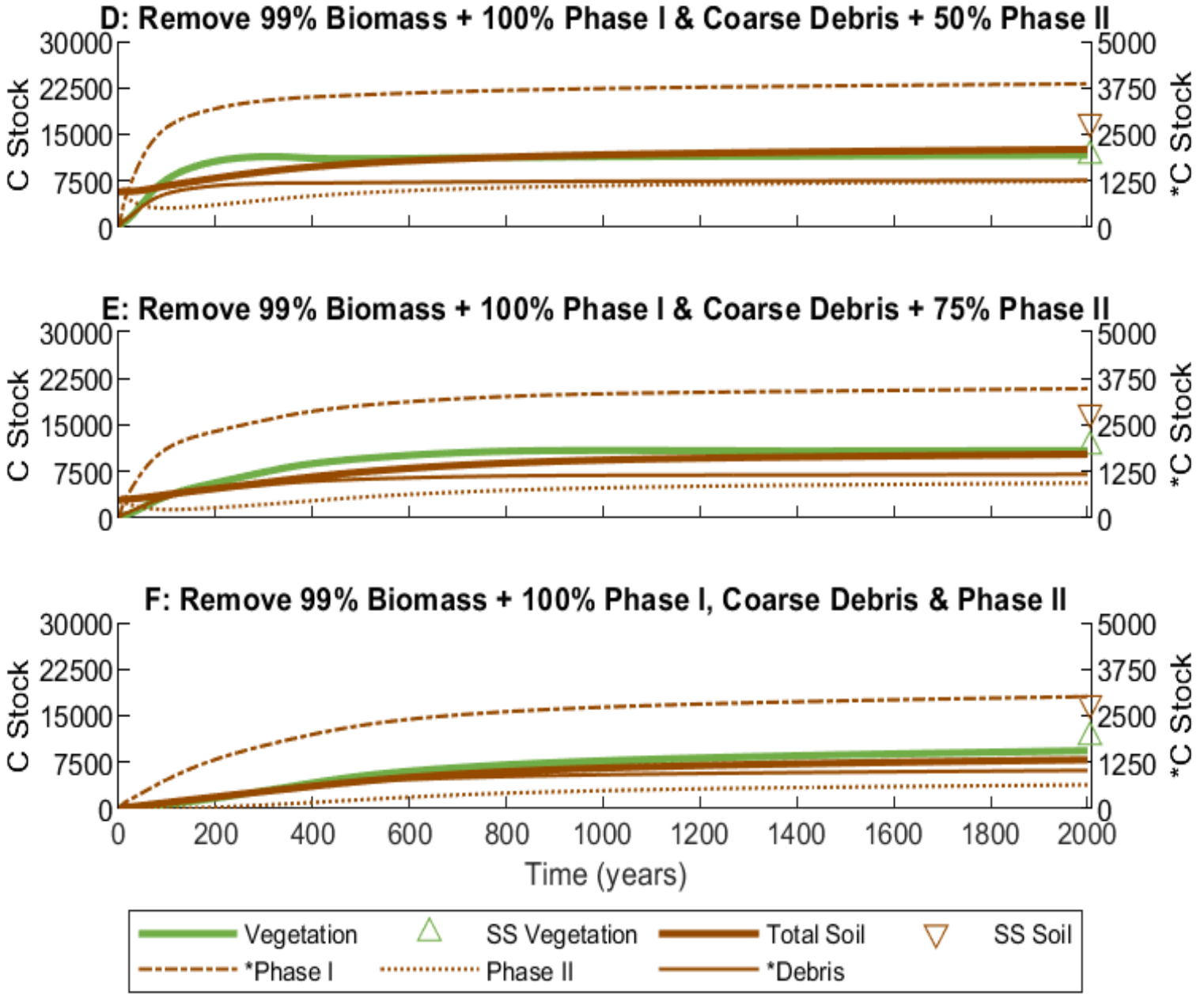
Plots on the left show changes in vegetation and soil carbon, nitrogen, and phosphorus in response to four climate treatments: double CO_2 ($2xCO_2$), three-degree temperature increase (T), 10% increase in precipitation (Ppt), and combined CO_2, temperature and precipitation (All). The line color indicates the climate treatment. Total vegetation is plotted as solid lines on the left axis. Total soil is plotted as dashed lines on the right axis. The increments on the left and right axes are the same.

Plots on the right show the total change in carbon, nitrogen, and phosphorus in the vegetation, soil, and ecosystem after 100 years for each climate treatment.

Hubbard Brook



Hubbard Brook



IV.HBF.Disturbance_1.png and IV.HBF.Disturbance_2.png

The time series of recovery for carbon, nitrogen, and phosphorus after disturbance. Vegetation is plotted in green. Total soil, phase I soil, phase II soil and debris are plotted in brown. Unstarred variables are plotted on the left axis and starred variables are plotted on the right axis. The open triangles are the steady state values for total vegetation (green) and total soil (brown).