

Supplementary Figures:

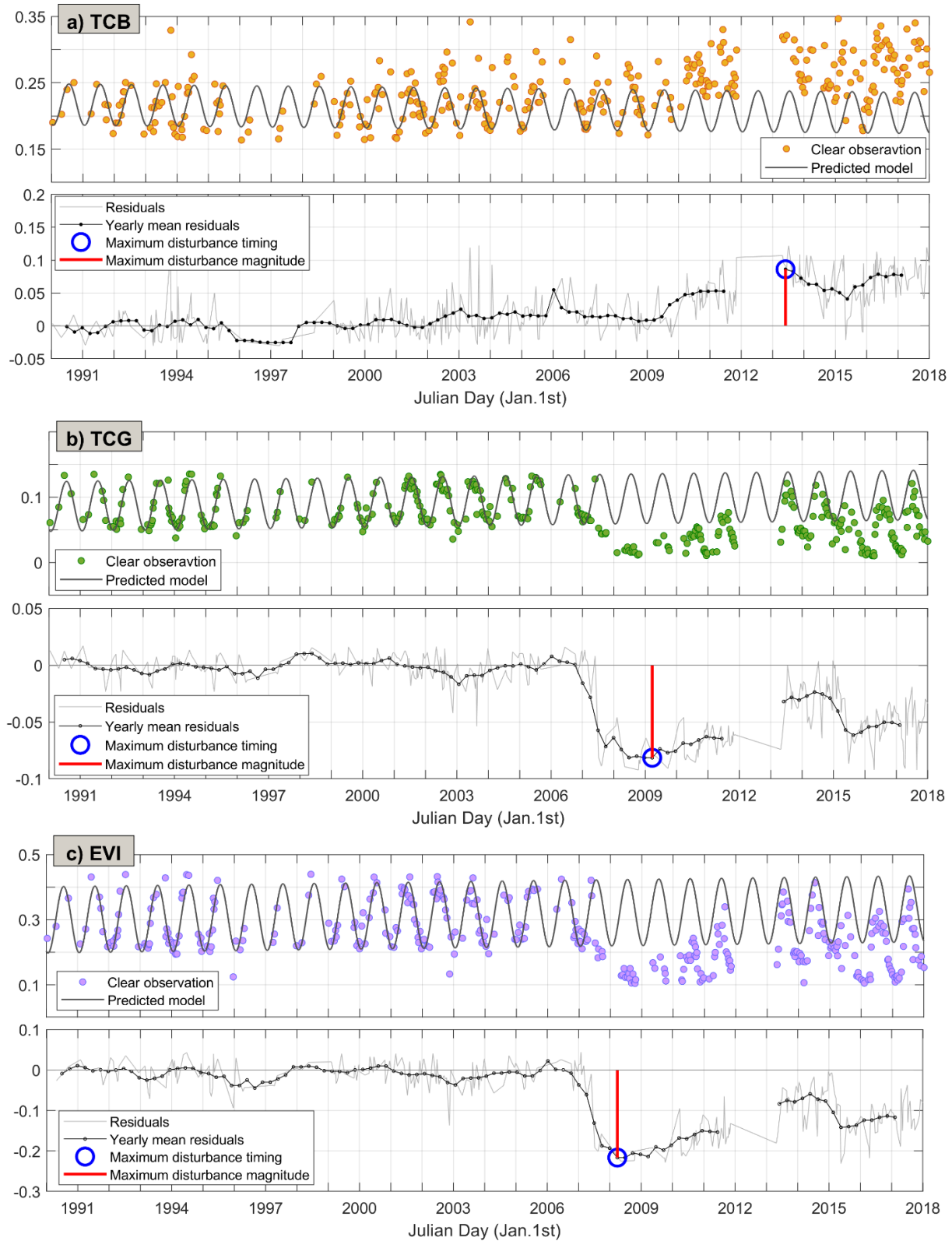


Figure S1 (continues): The spectral trajectory of (a) TCB, (b) TCG, and (c) EVI, their residuals (light grey lines), and the mean values within 1-year moving windows with 3-month step (solid black line with dots in lower panels) at a Landsat pixel with a fire in 2007. The residuals were the difference between the observed and projected values (dark grey line), fitted by Eq. (1) before 2000. The maximum disturbance magnitude (red lines) and its timing (blue circles) are shown in the mean residuals trajectories.

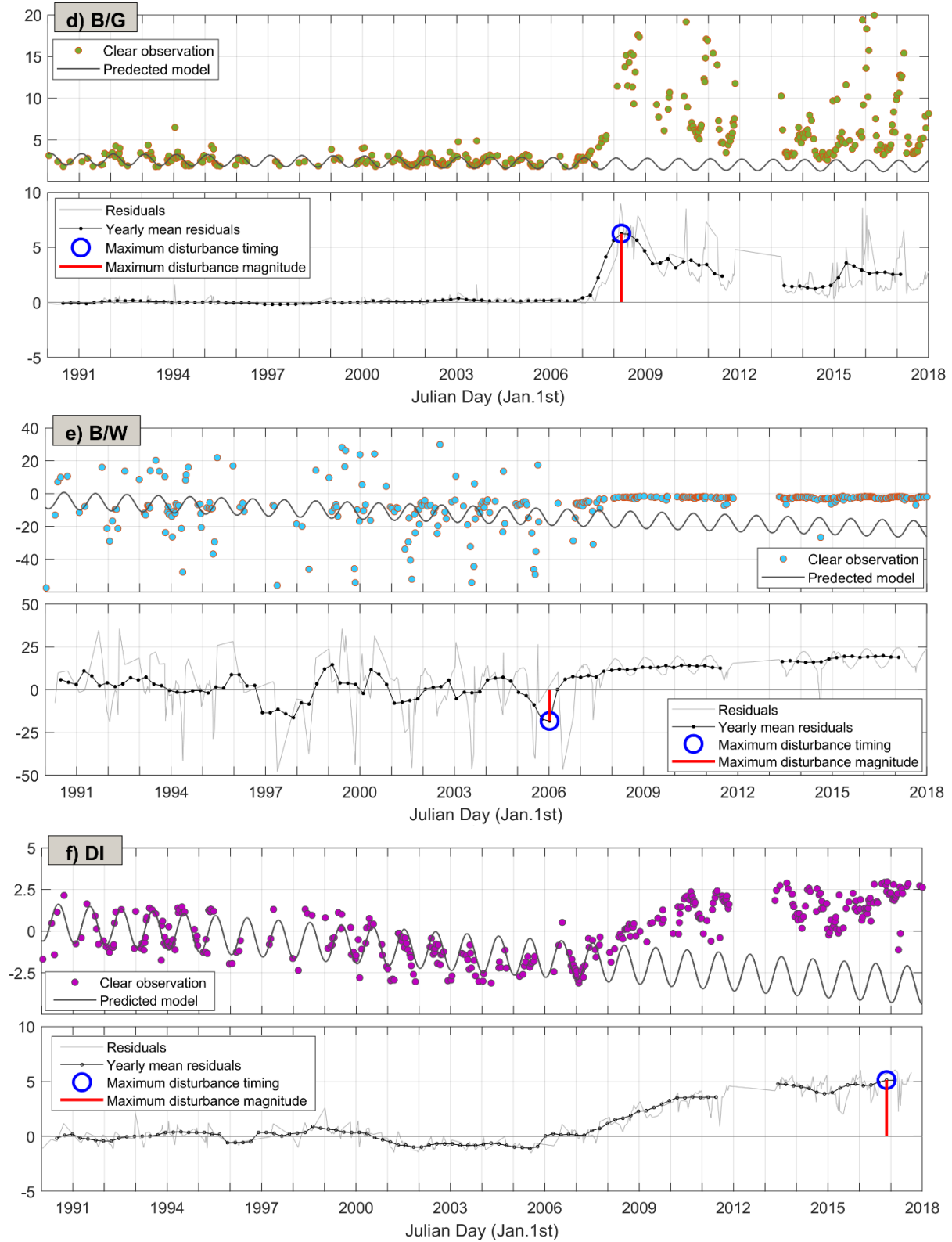


Figure S1 continues: The spectral trajectory of (d) B/G, (e) B/W, and (f) DI, their residuals (light grey lines), and the mean values within 1-year moving windows with 3-month step (solid black line with dots in lower panels) at a Landsat pixel with a fire in 2007. The residuals were the difference between the observed and projected values (dark grey line), fitted by Eq. (1) before 2000. The maximum disturbance magnitude (red lines) and its timing (blue circles) are shown in the mean residuals trajectories.

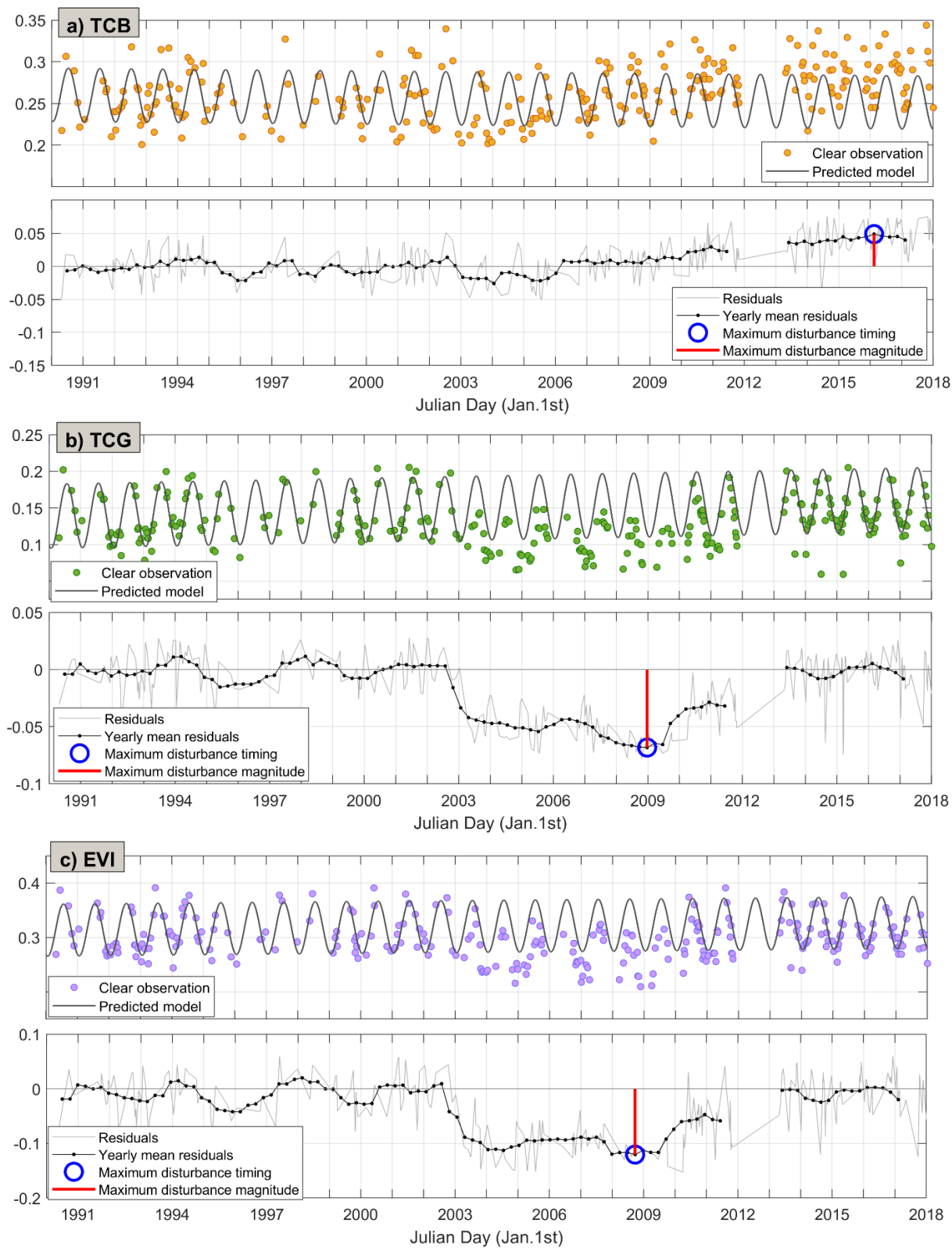


Figure S2 (continues): The spectral trajectory of (a) TCB, (b) TCG, and (c) EVI, their residuals (light grey line), and mean values within 1-year moving windows with 3-month step (solid line with dots in lower panels) at a HWA-defoliated Landsat pixel with 12 dead hemlocks. The residuals were the difference between observed and projected values (dark grey lines) fitted by Eq. (1) before 2000. The maximum disturbance magnitude (red lines) and its timing (blue circles) are shown in the mean residuals trajectories.

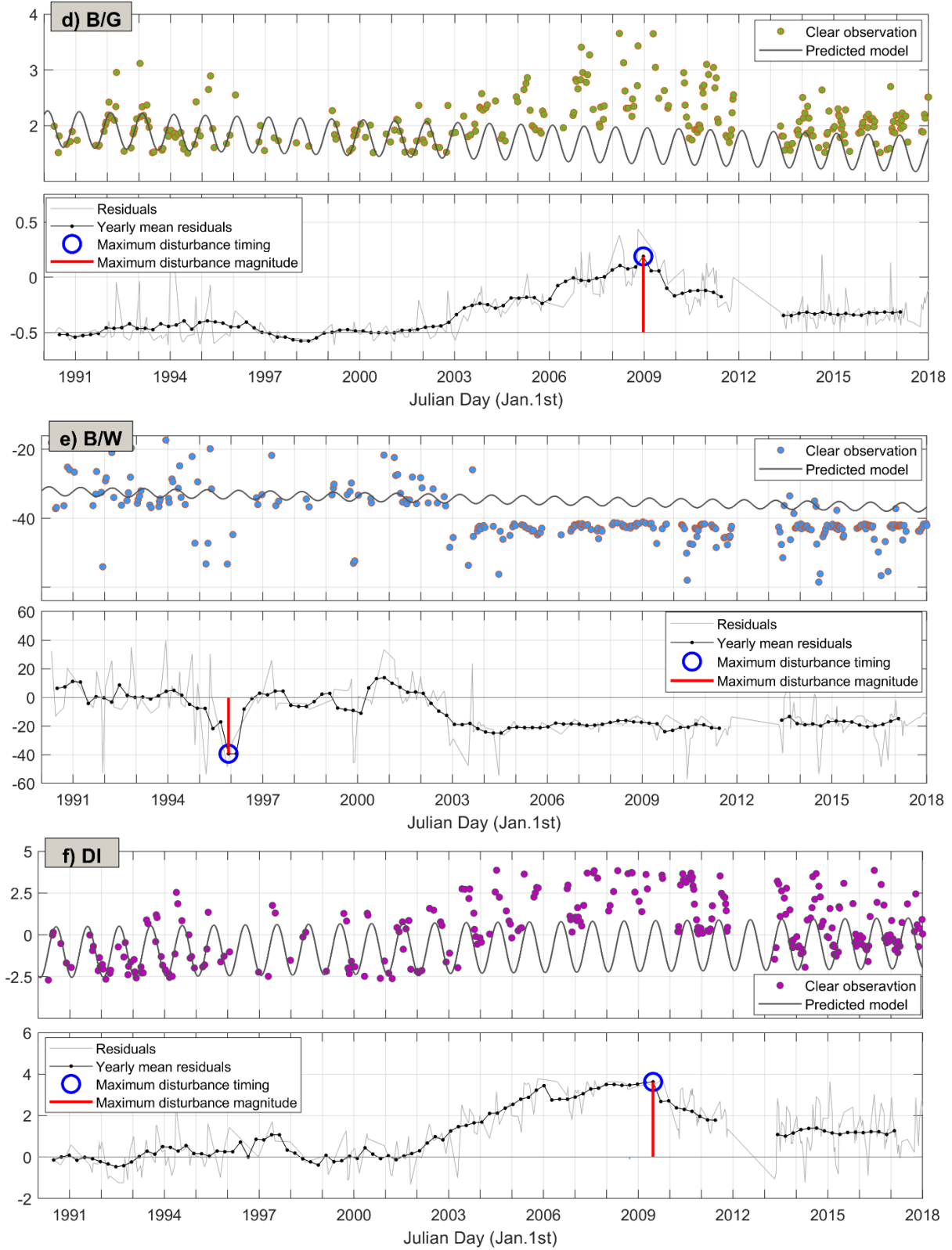


Figure S2 continues: The spectral trajectory of (d) B/G, (e) B/W, and (f) DI, their residuals (light grey line), and mean values within 1-year moving windows with 3-month step (solid line with dots in lower panels) at a HWA- defoliated Landsat pixel with 12 dead hemlocks. The residuals were the difference between observed and projected values (dark grey lines) fitted by Eq. (1) before 2000. The maximum disturbance magnitude (red lines) and its timing (blue circles) are shown in the mean residuals trajectories.

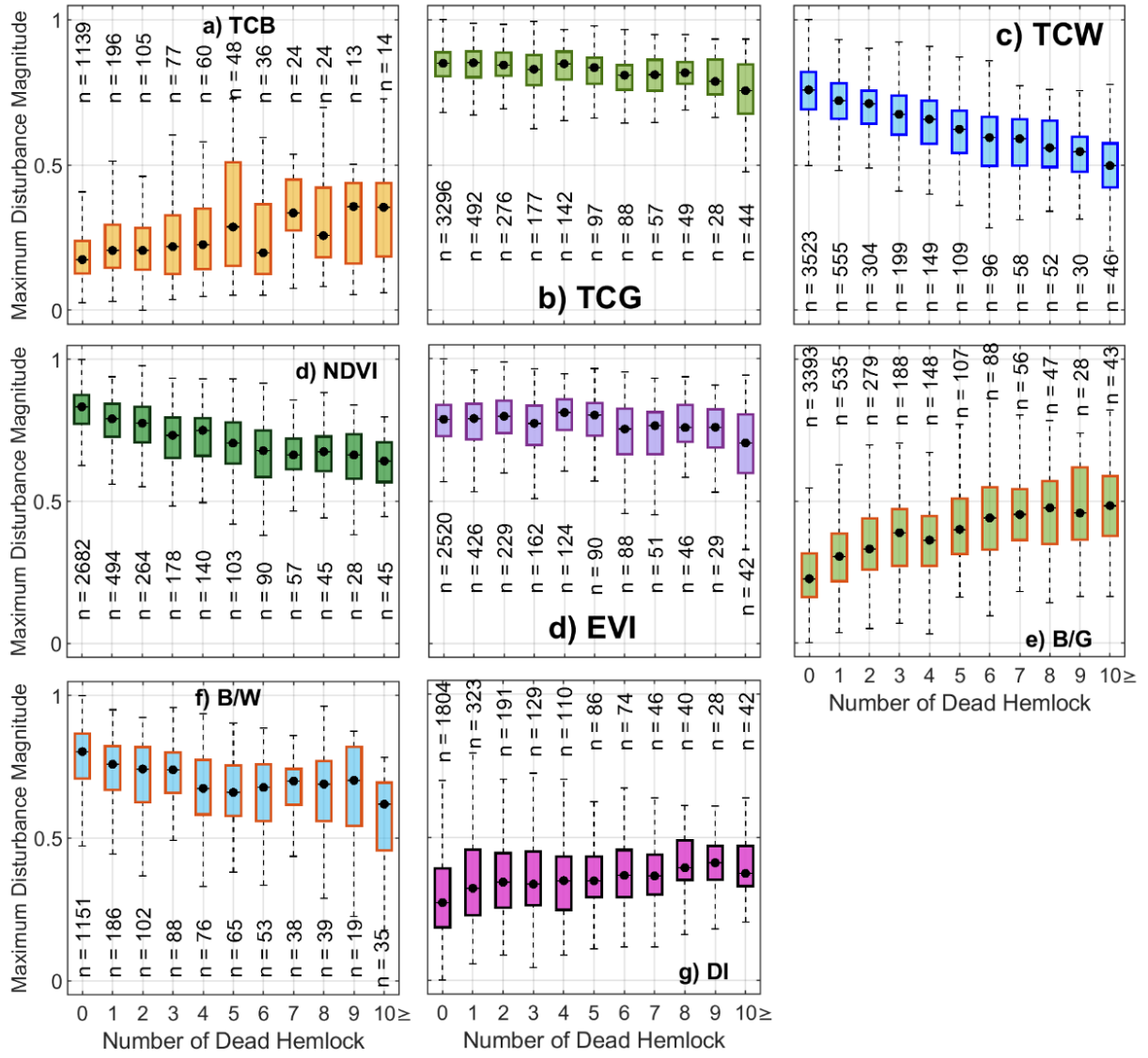


Figure S3: Boxplots of indices' maximum disturbance magnitude as a function of the number of dead hemlocks in a pixel. The black circles represent the median values of disturbance magnitudes that were used in the linear regression analysis (Fig. 8).

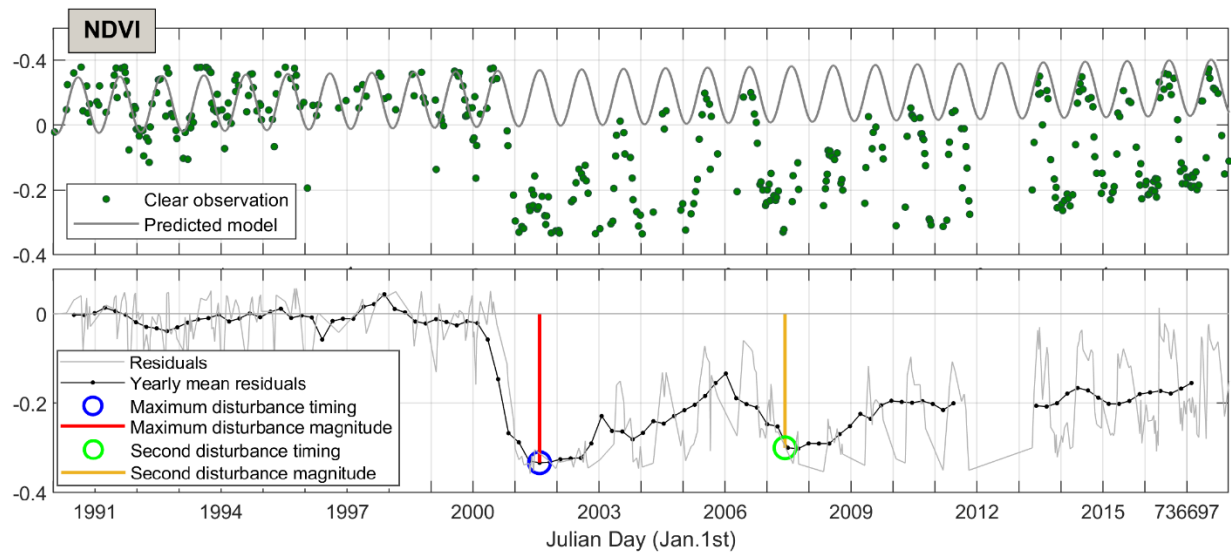


Figure S4: The spectral trajectories of NDVI, residuals (light grey line), and mean values within 1-year moving windows with 3-month step (solid line with dots in lower panel) at a Landsat pixel with both 2000 and 2007 fires. The blue circle in the lower panel represents the maximum disturbance (2000 fire) timing, and the green circle represents the disturbance timing of the second sever disturbance (2007 fire).