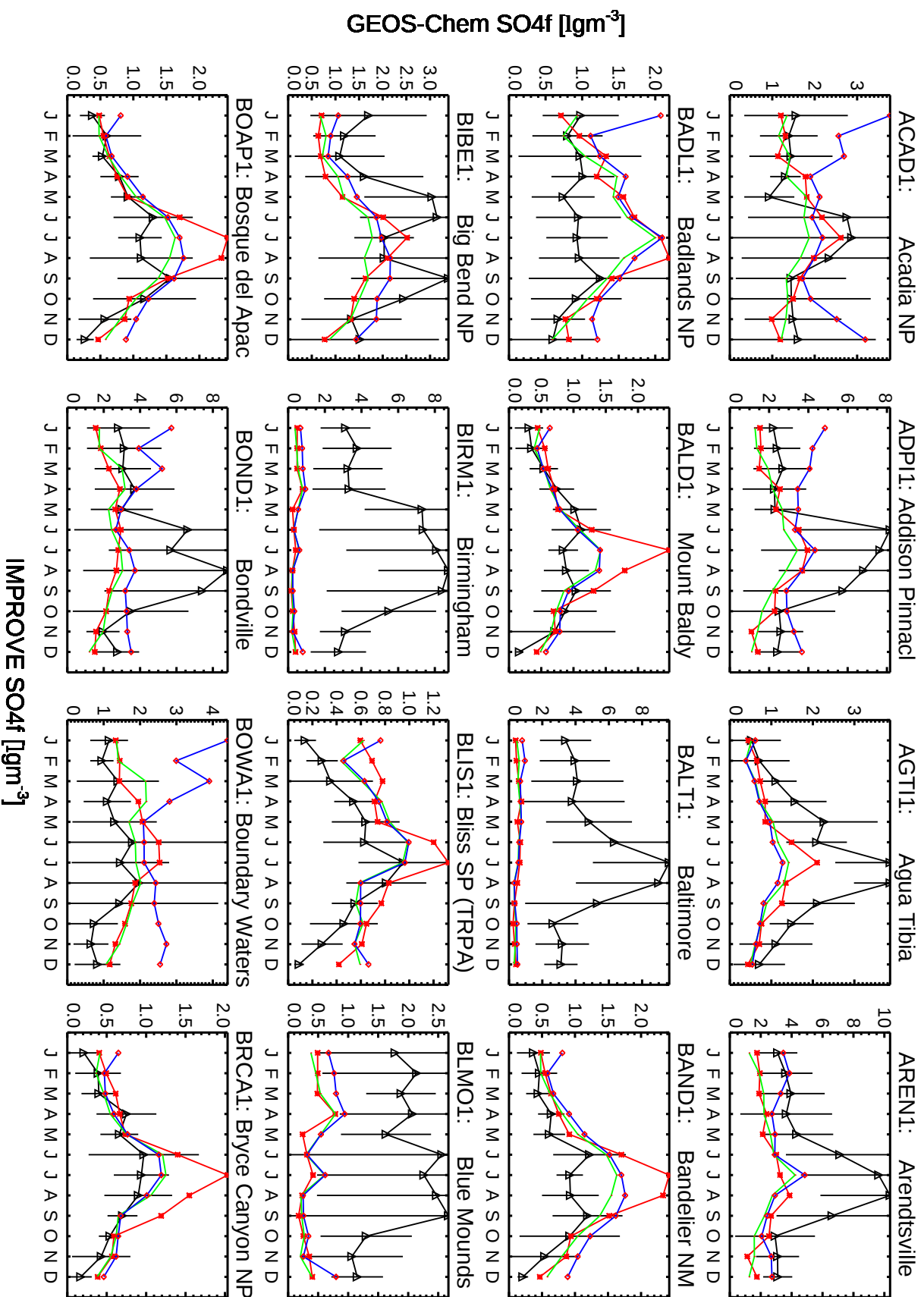
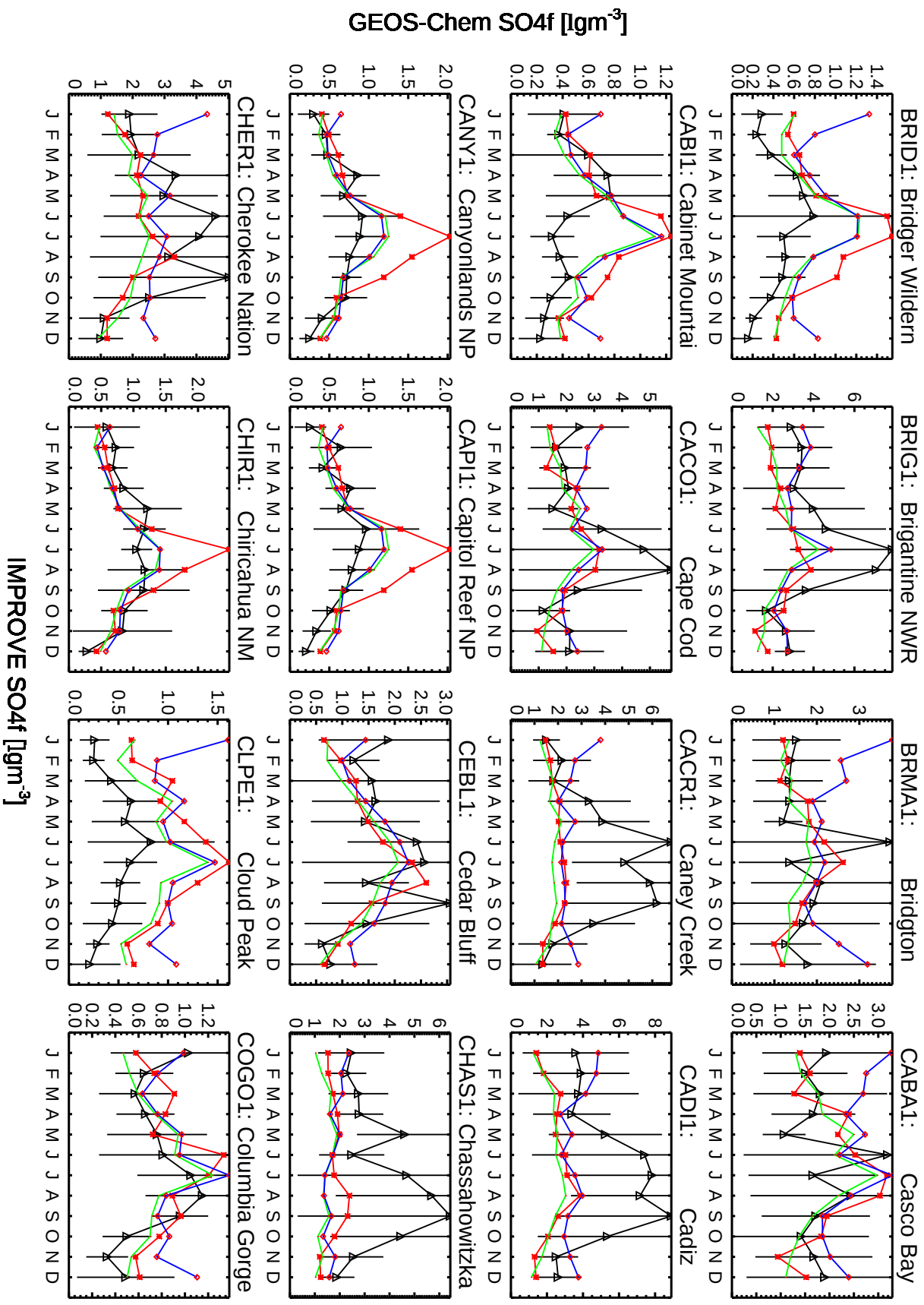


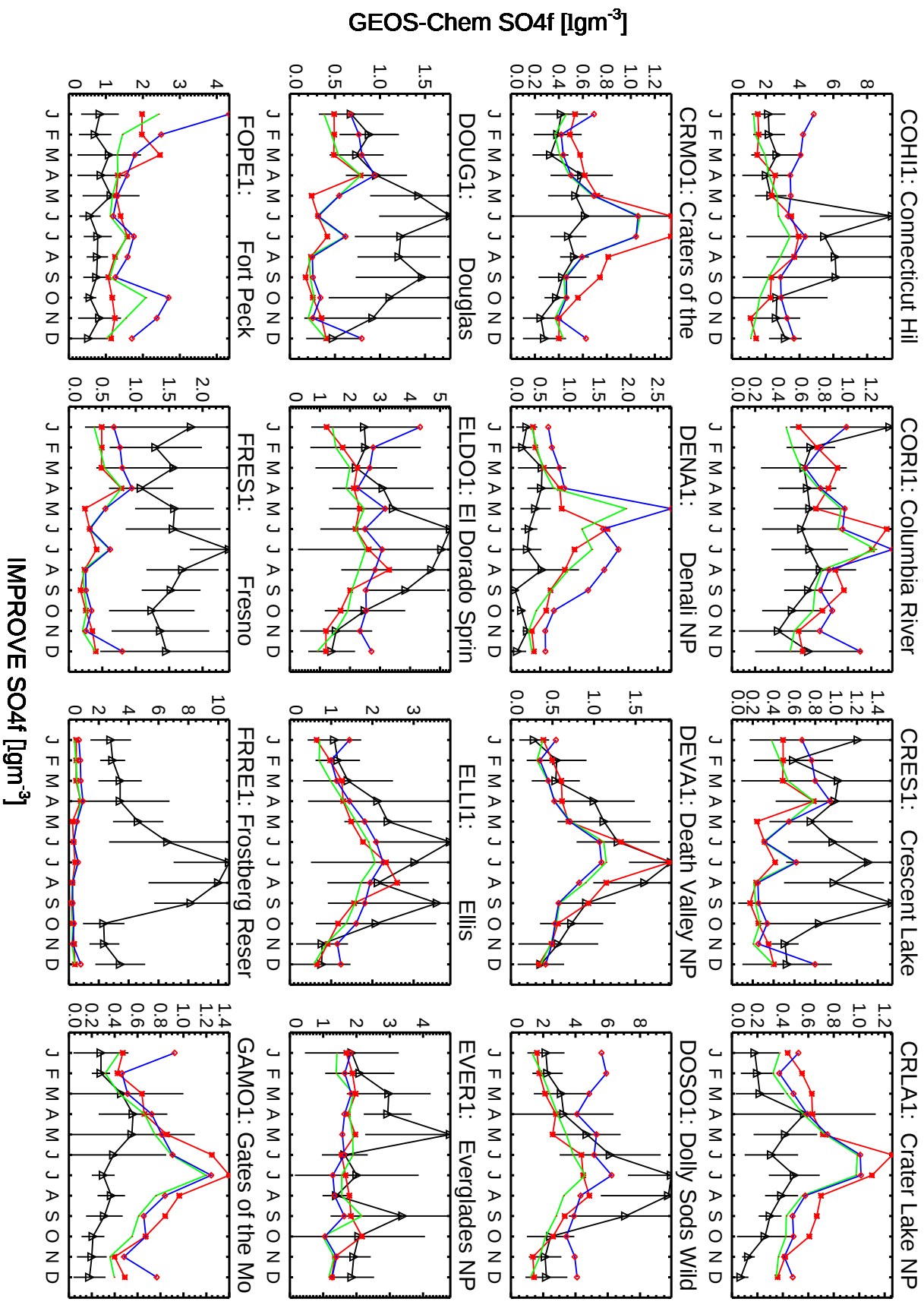
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



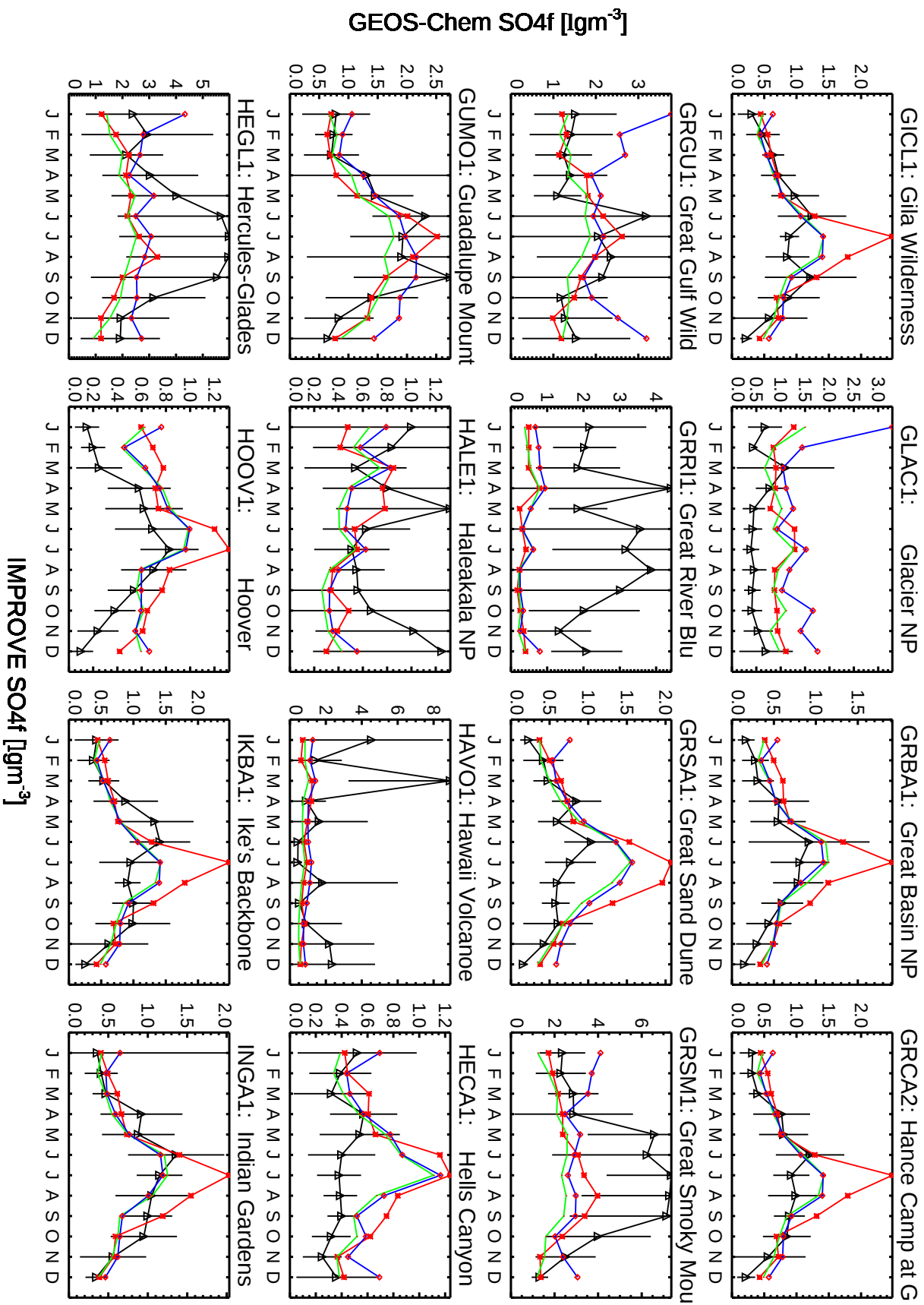
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



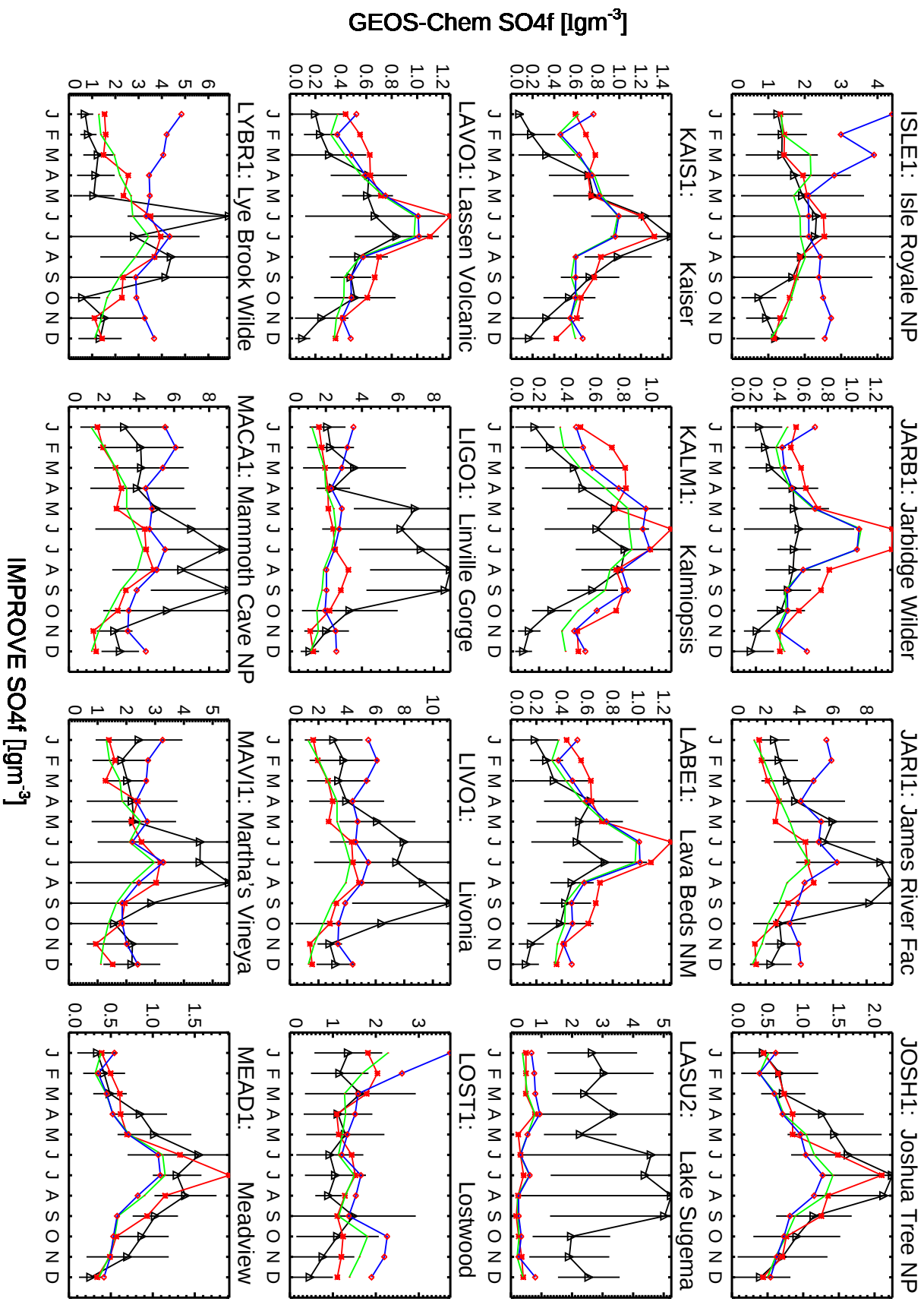
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



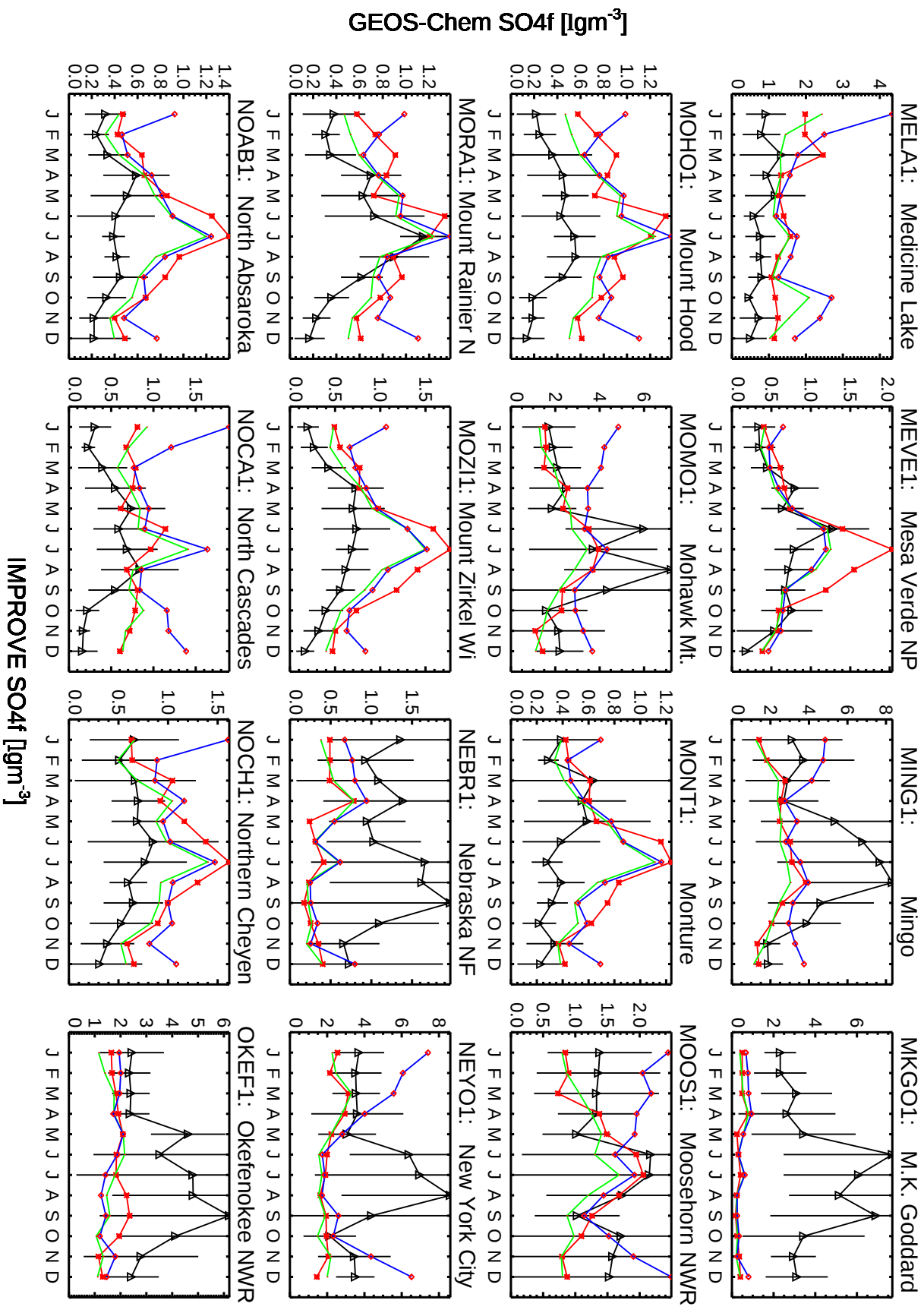
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



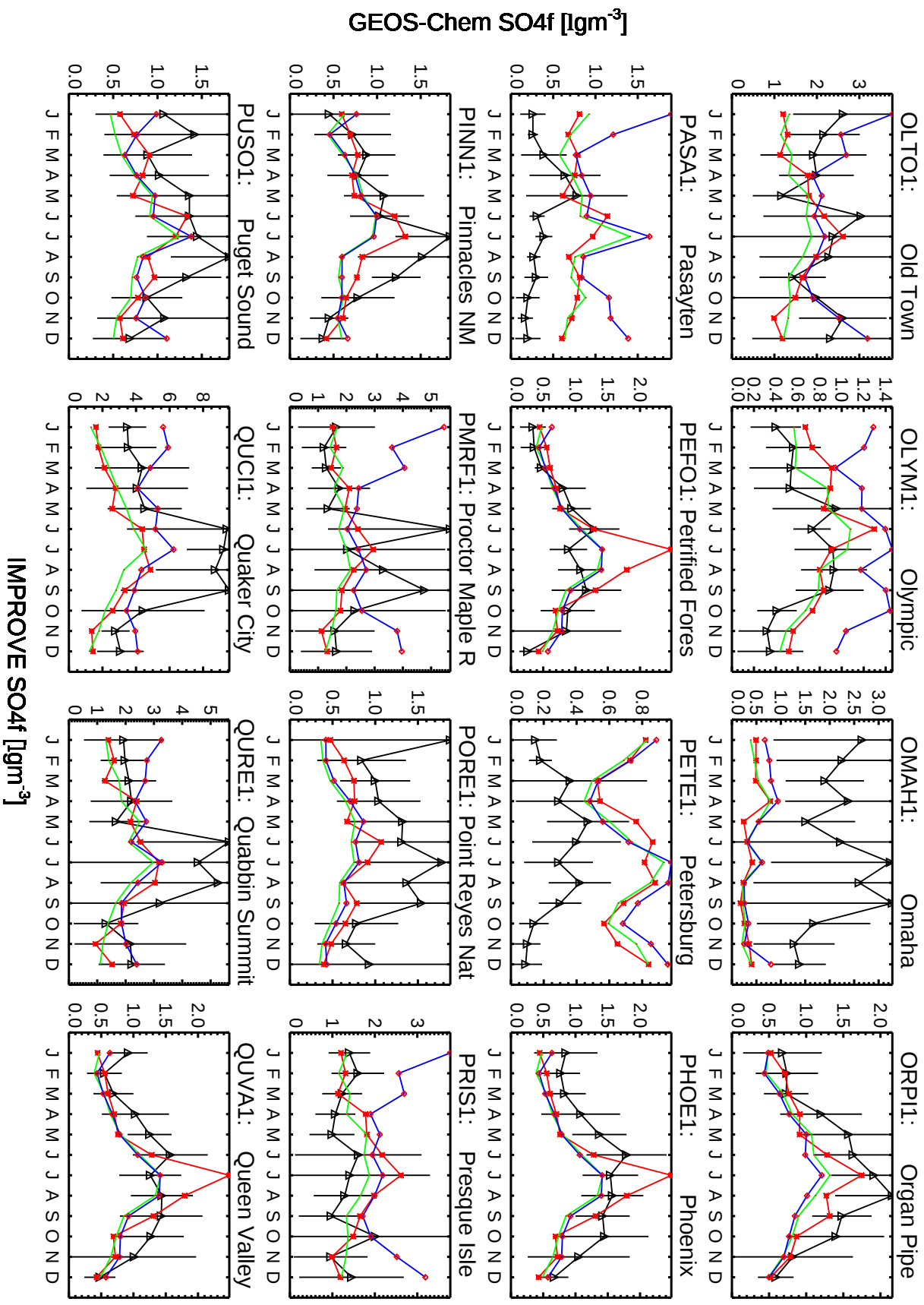
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



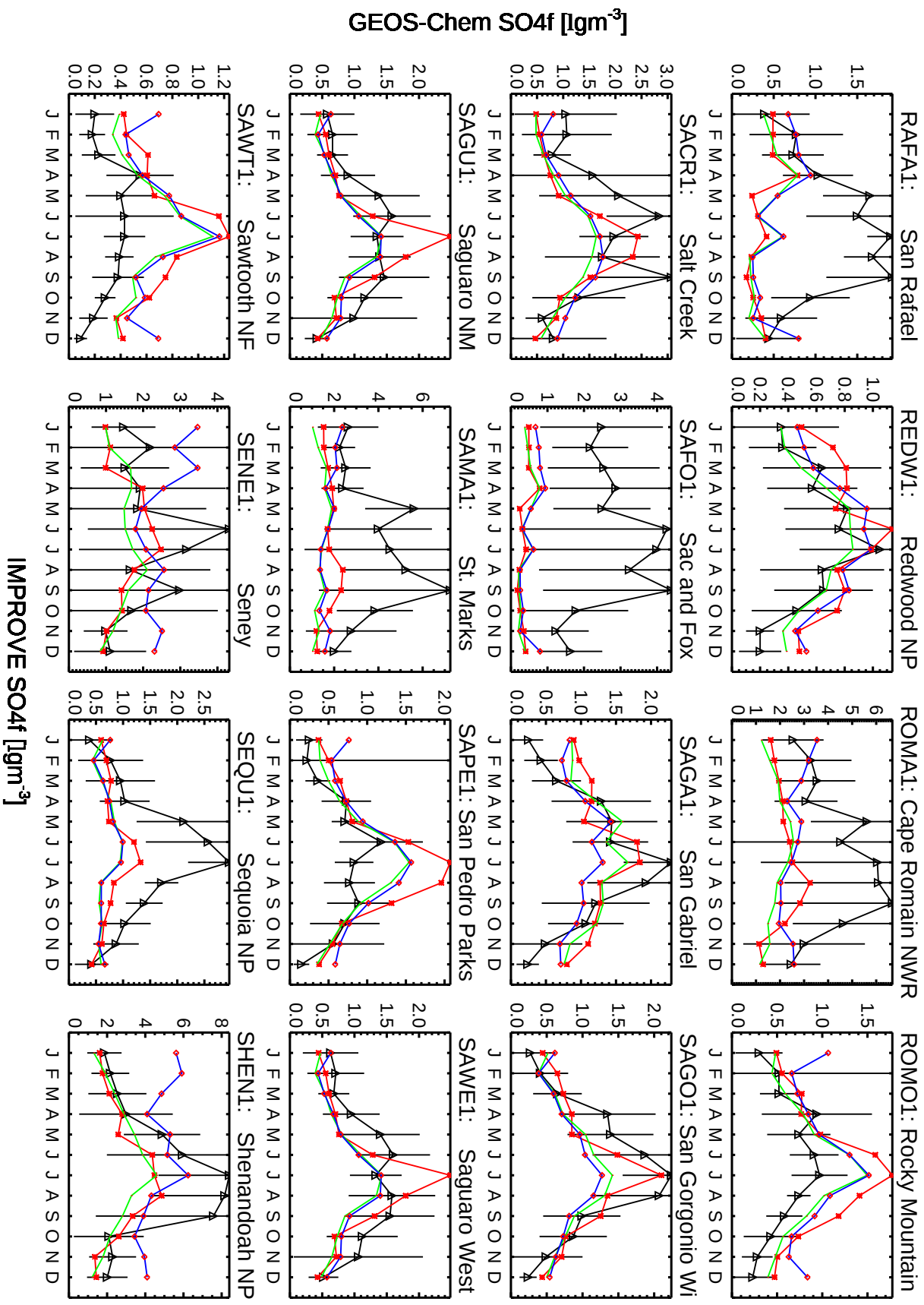
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



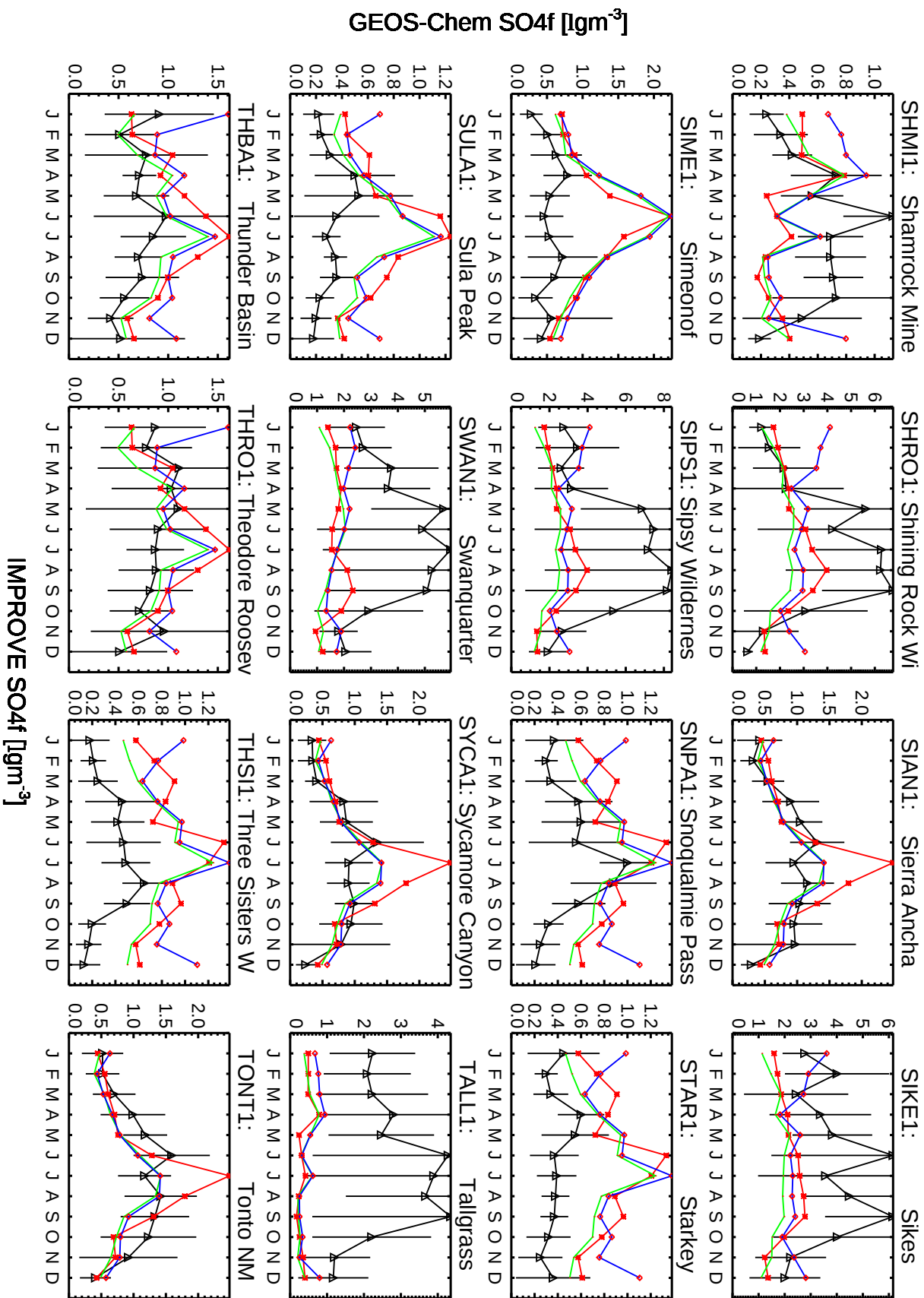
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



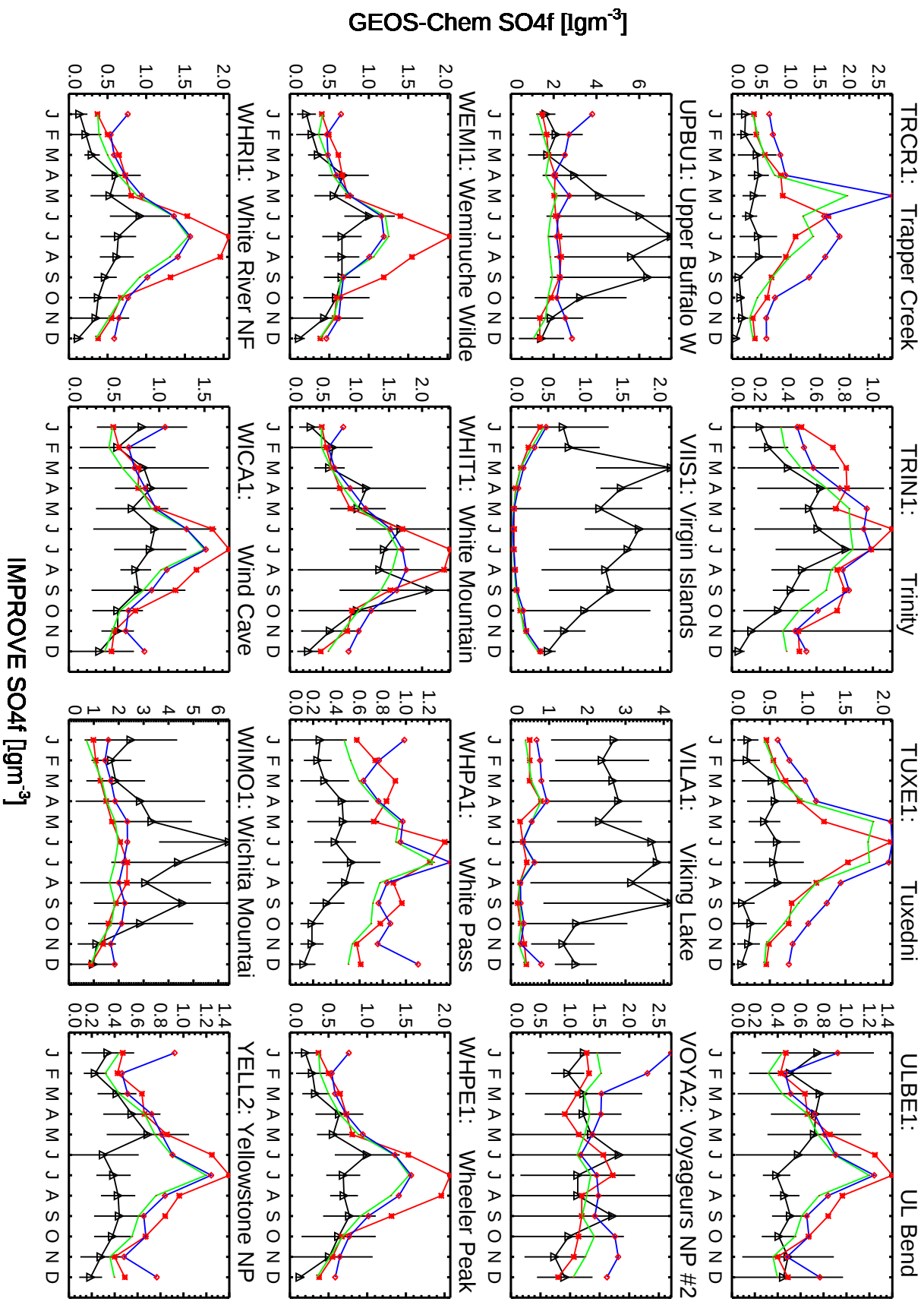
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



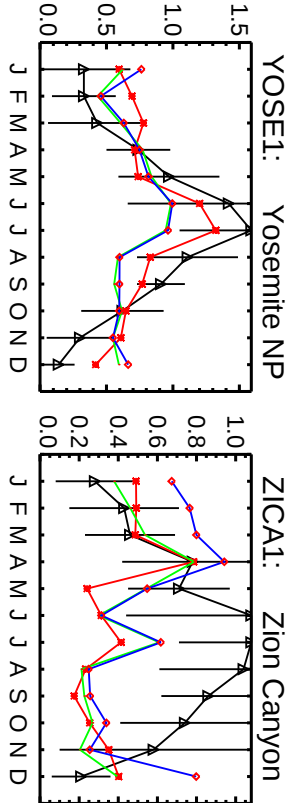
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



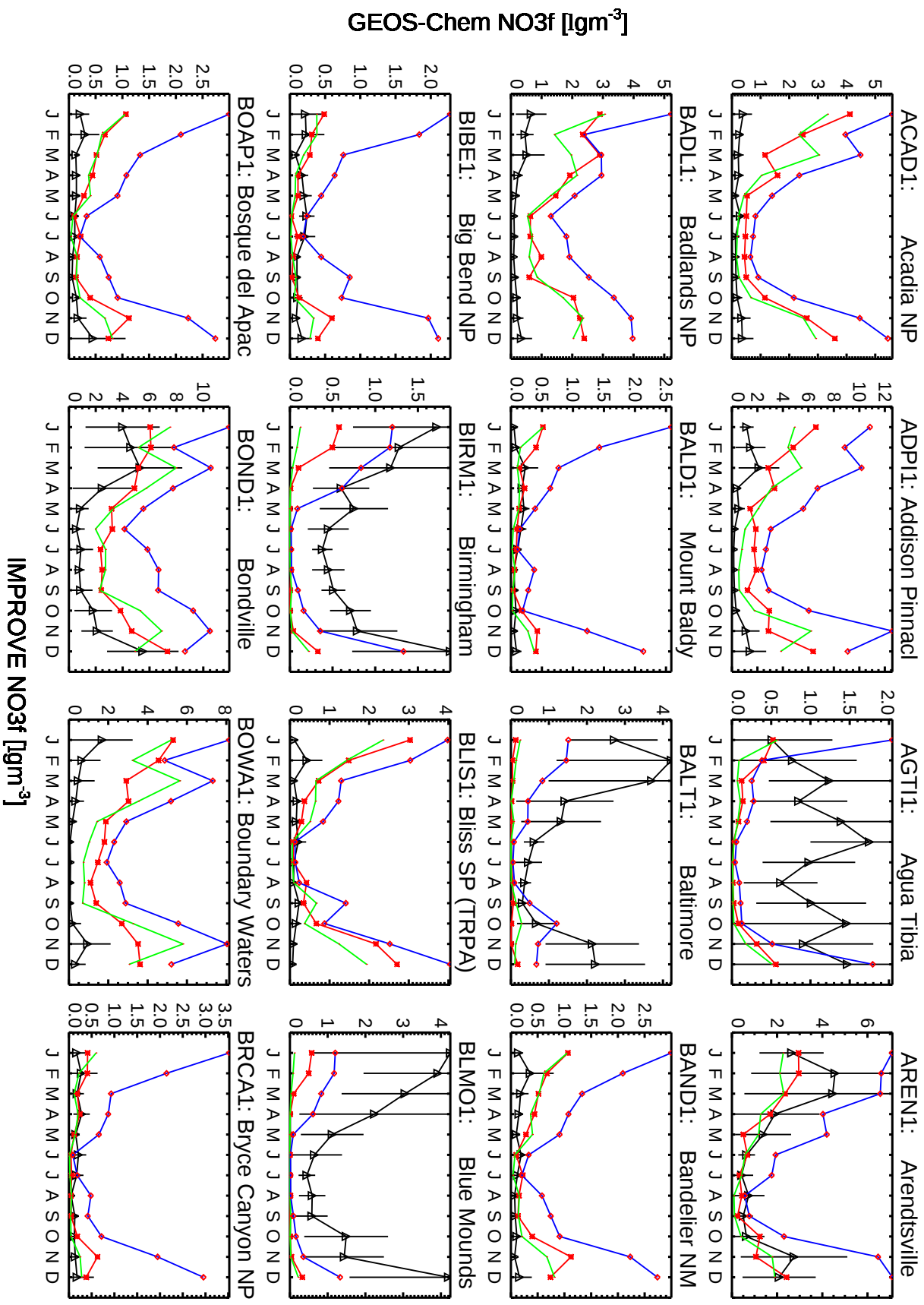
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



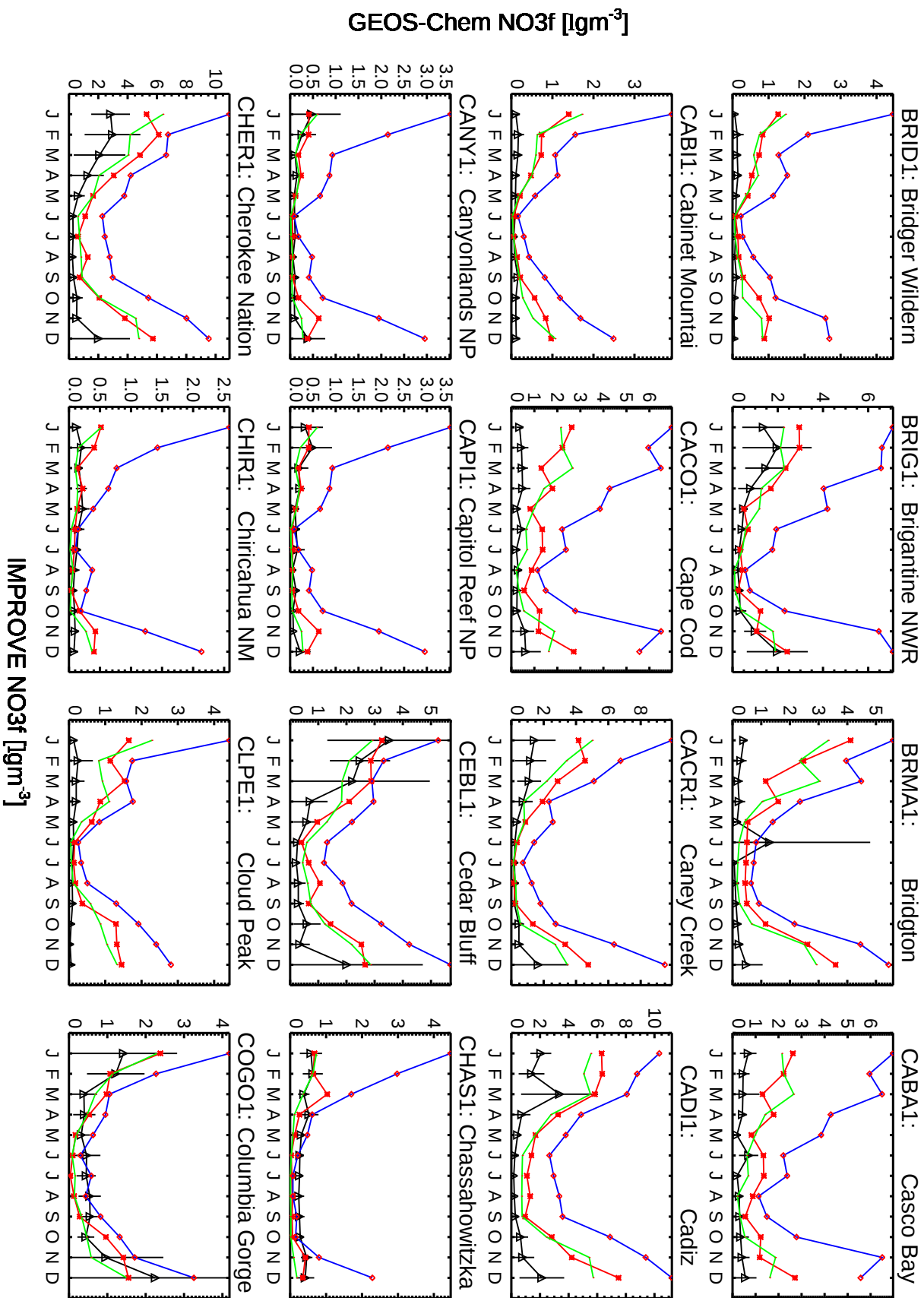
GEOS-Chem  $\text{SO}_4\text{f}$  [ $\mu\text{g m}^{-3}$ ]

IMPROVE  $\text{SO}_4\text{f}$  [ $\mu\text{g m}^{-3}$ ]

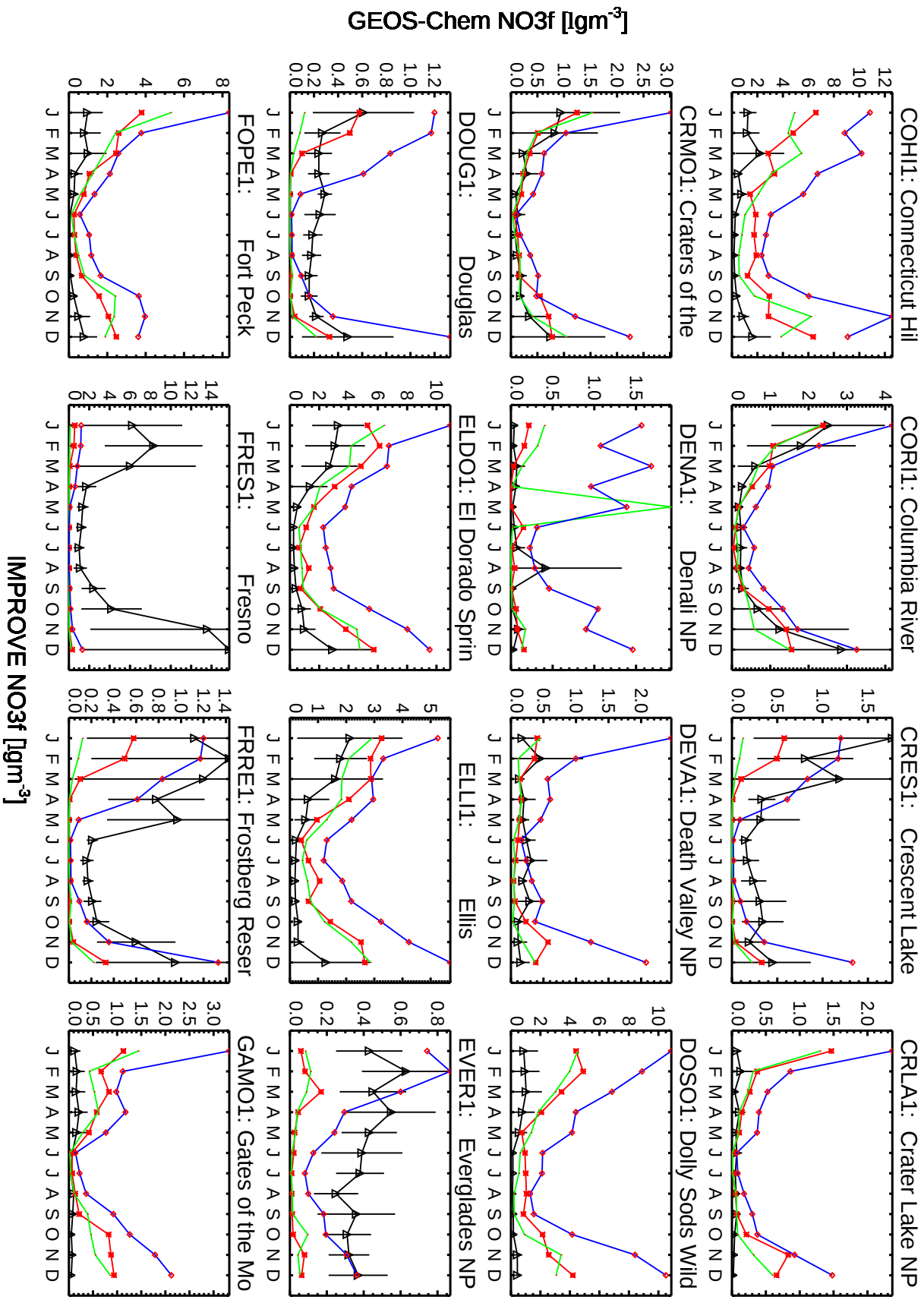
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



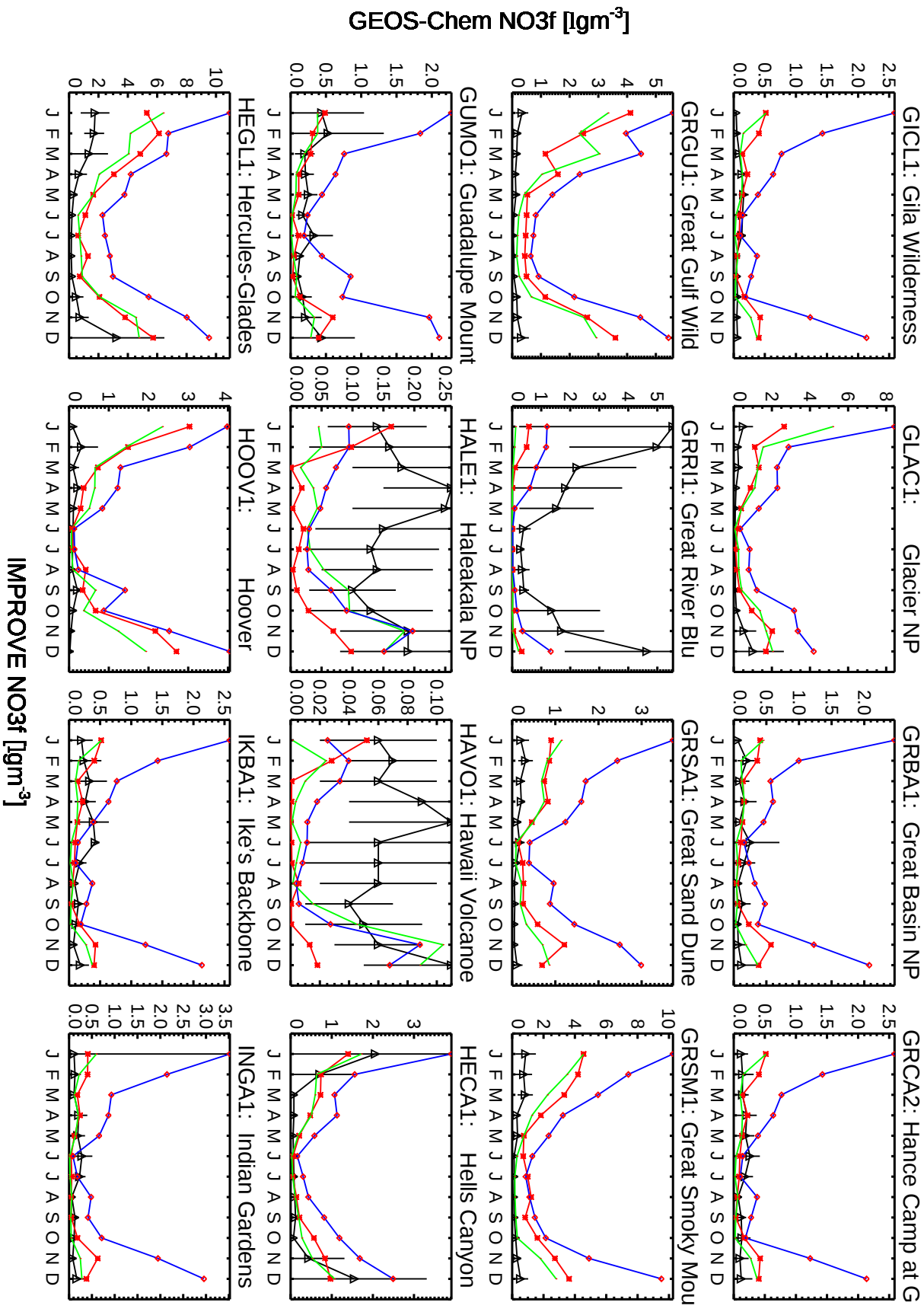
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



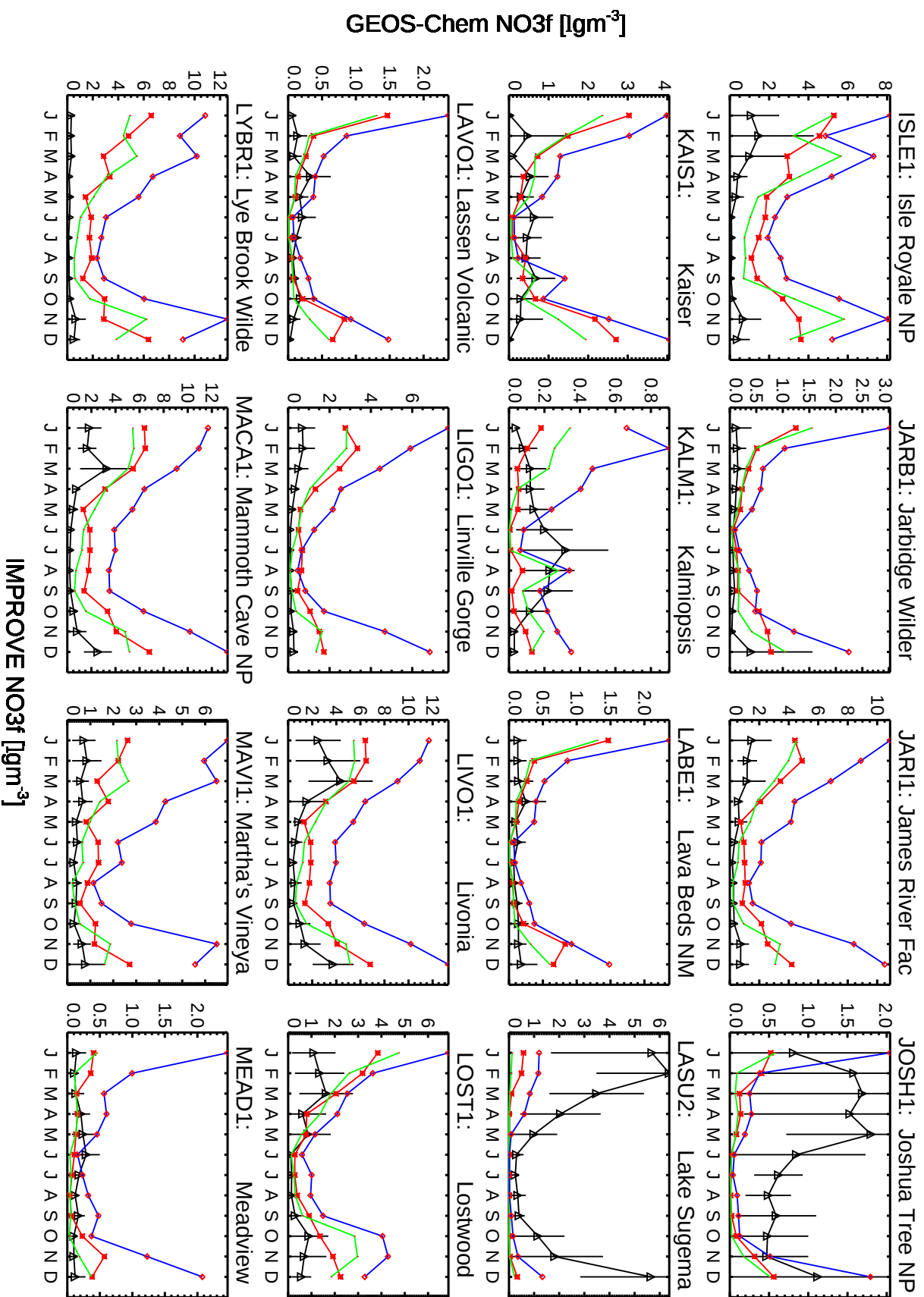
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



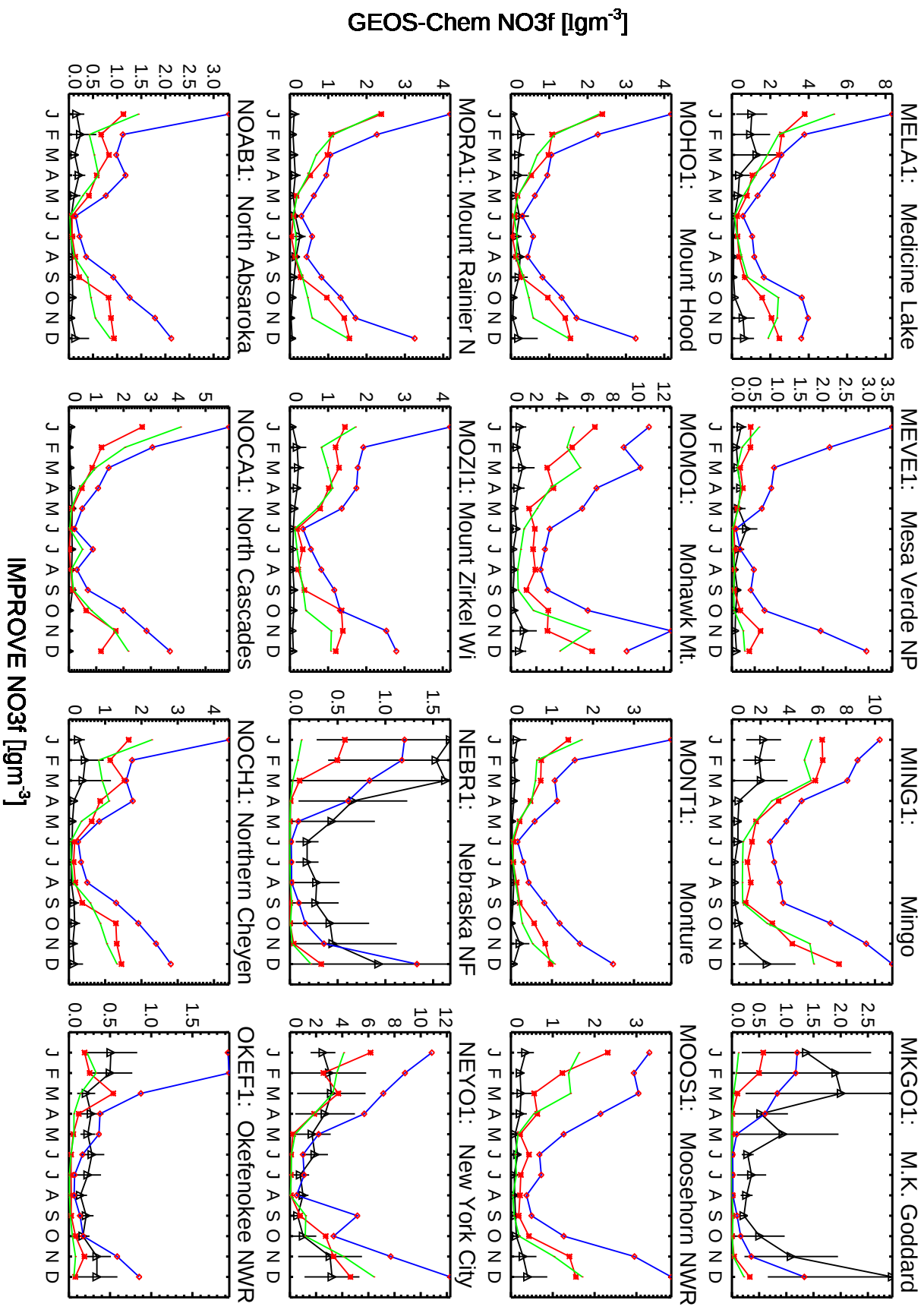
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



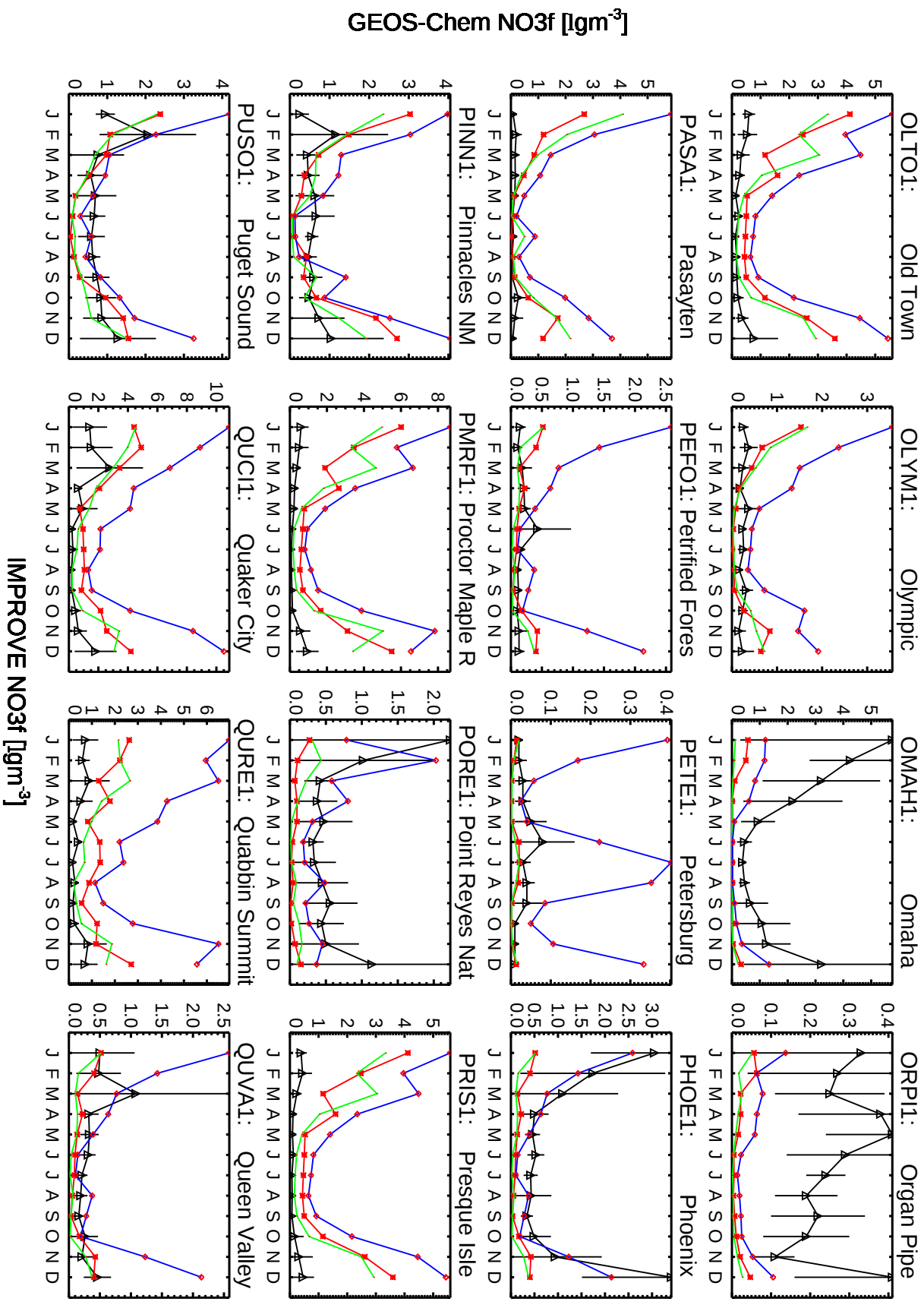
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



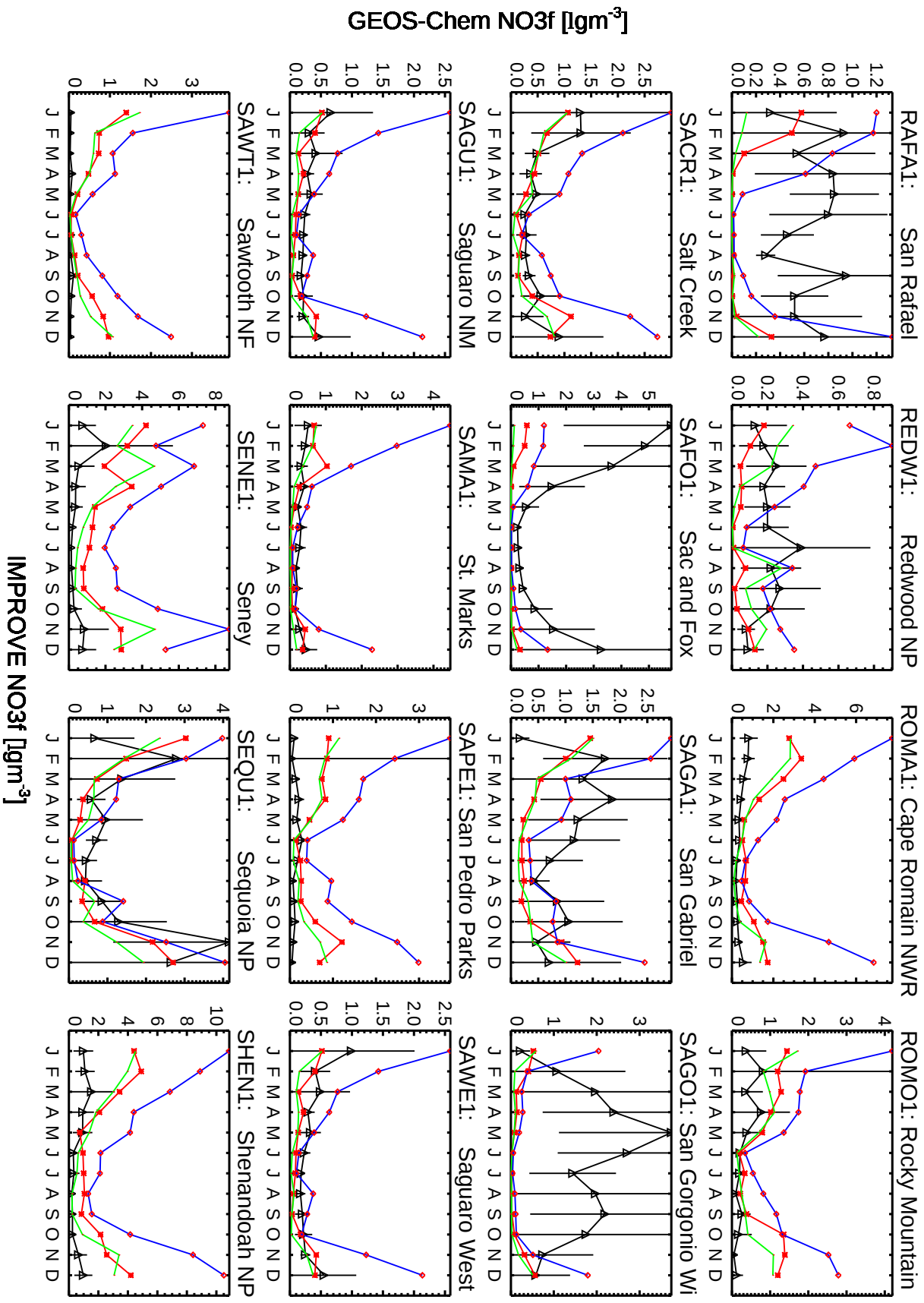
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



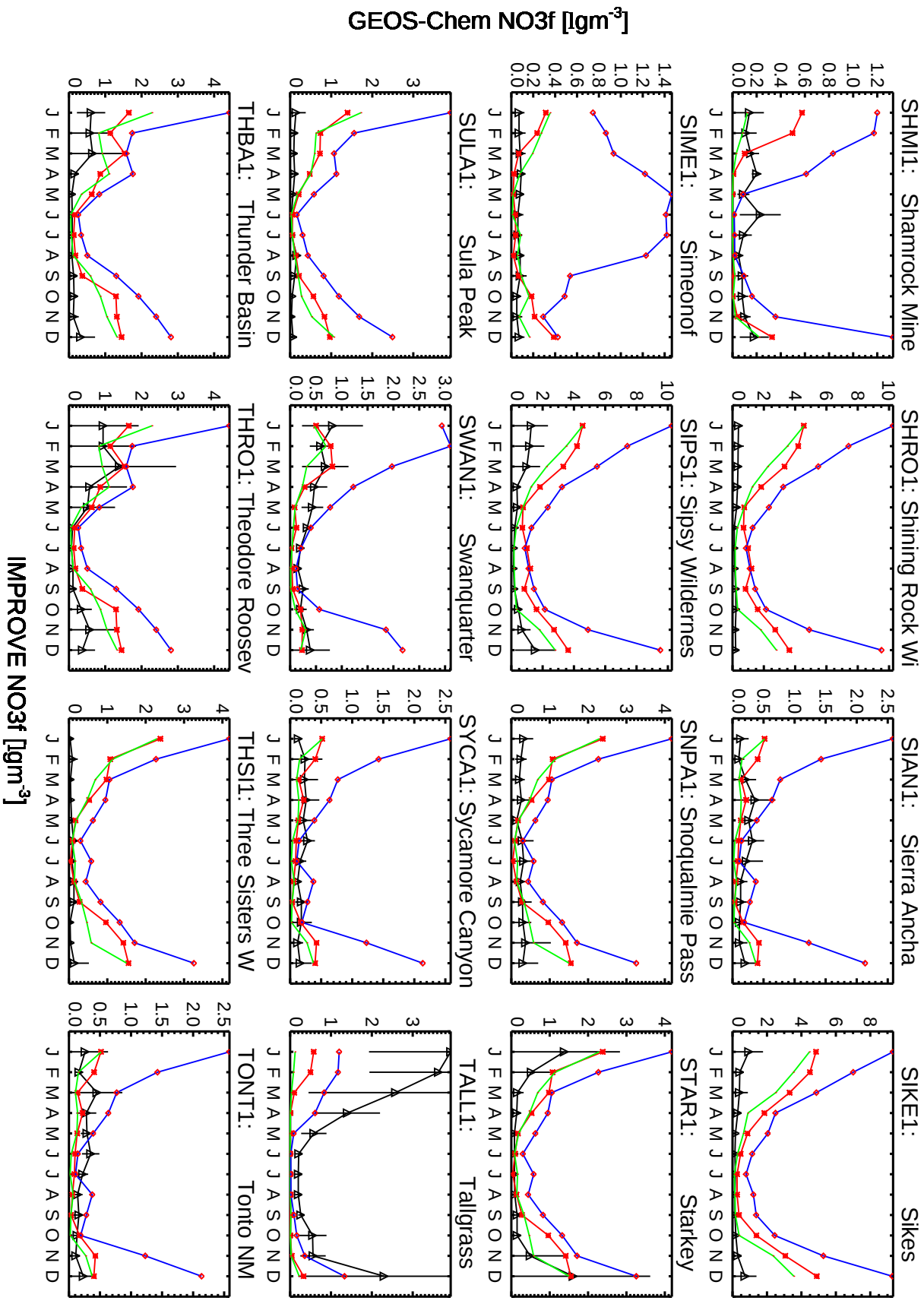
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



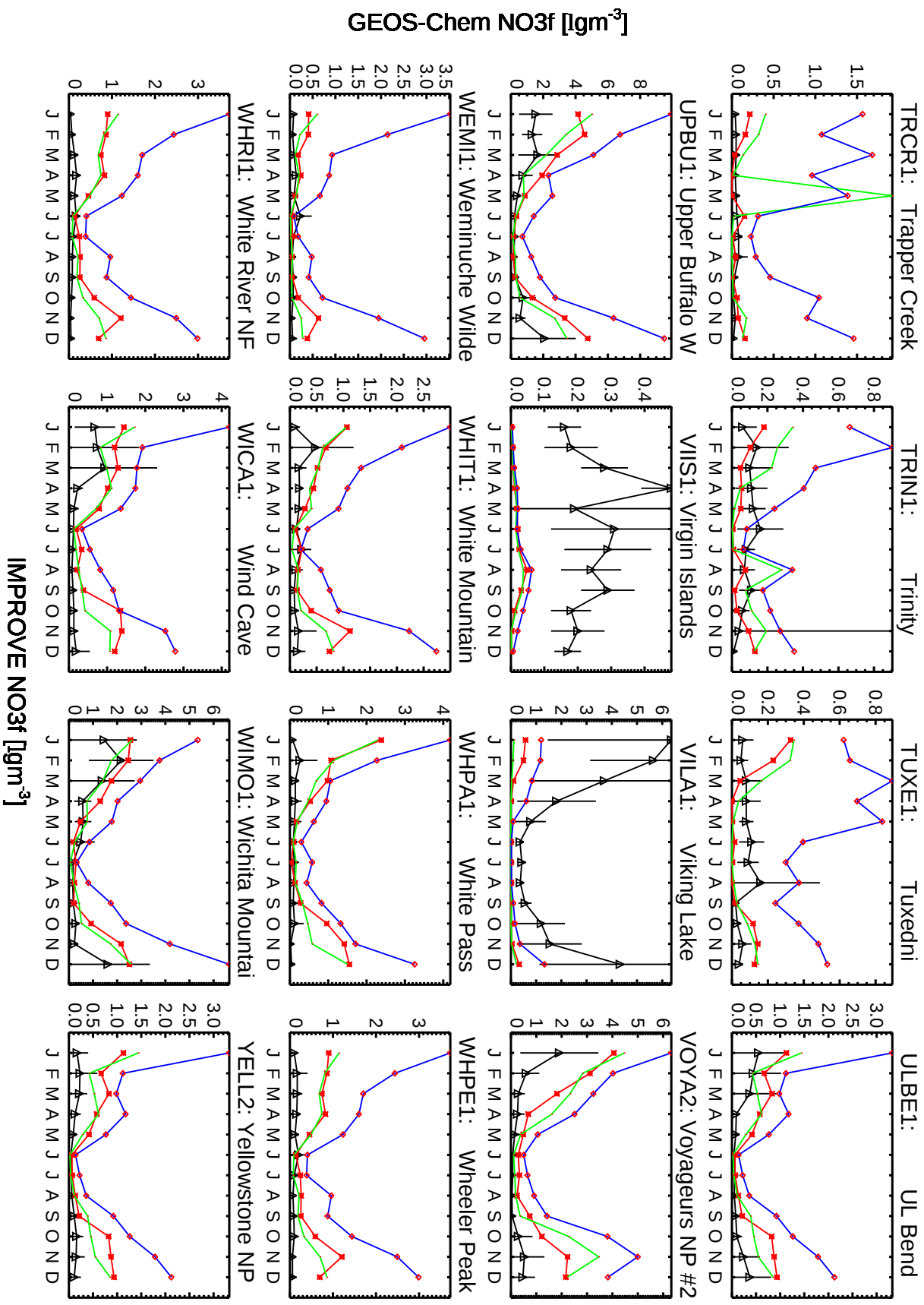
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



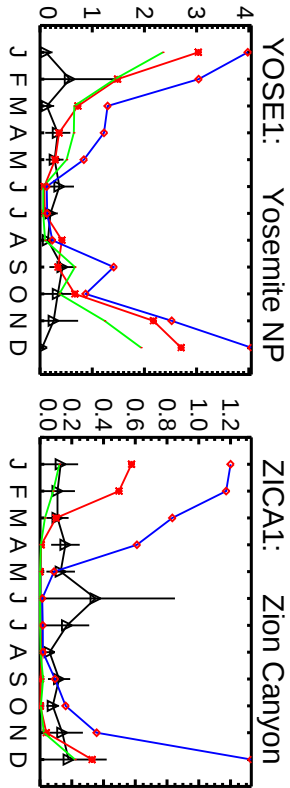
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



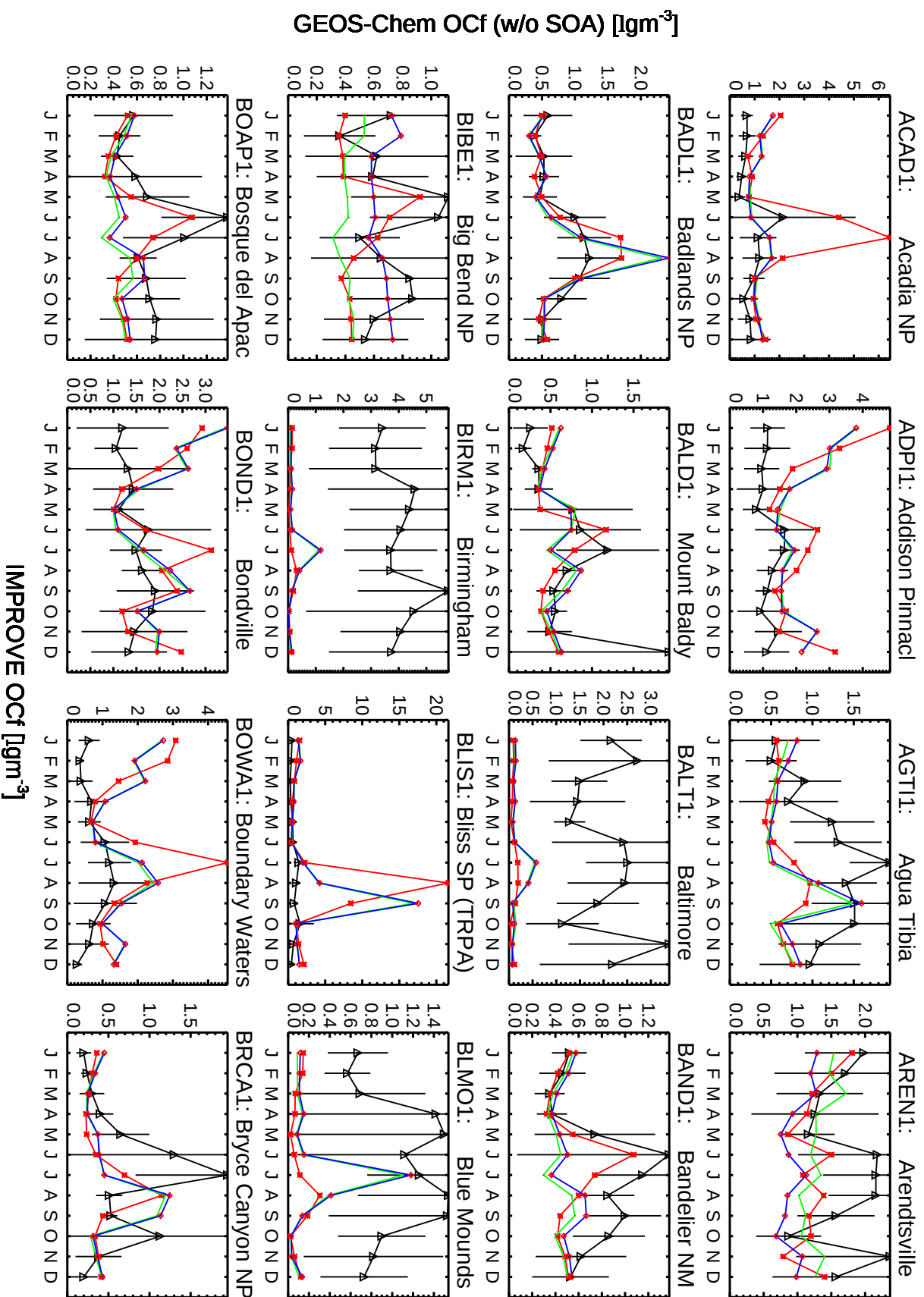
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



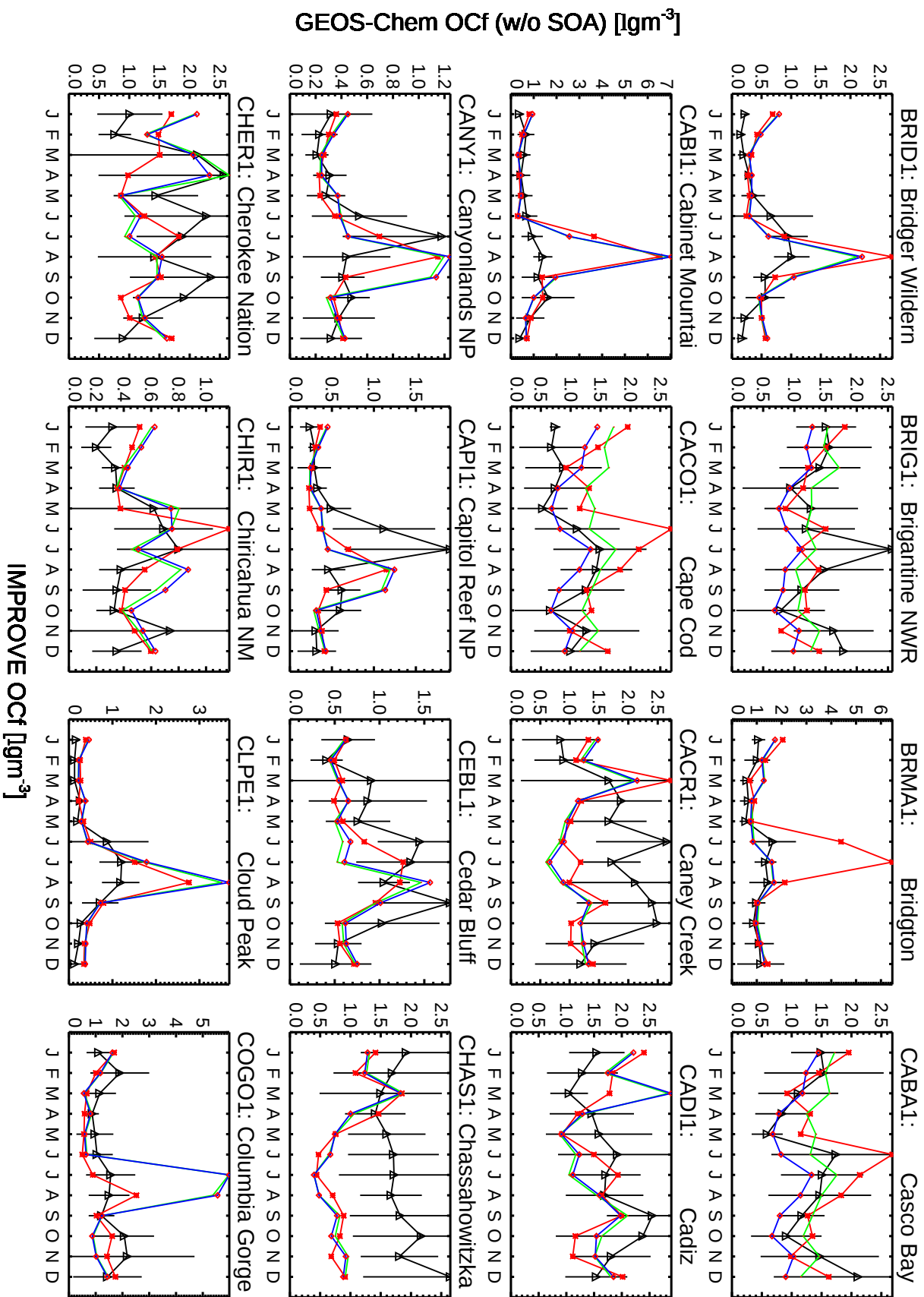
GEOS-Chem NO<sub>3</sub>f [μg m<sup>-3</sup>]

IMPROVE NO<sub>3</sub>f [μg m<sup>-3</sup>]

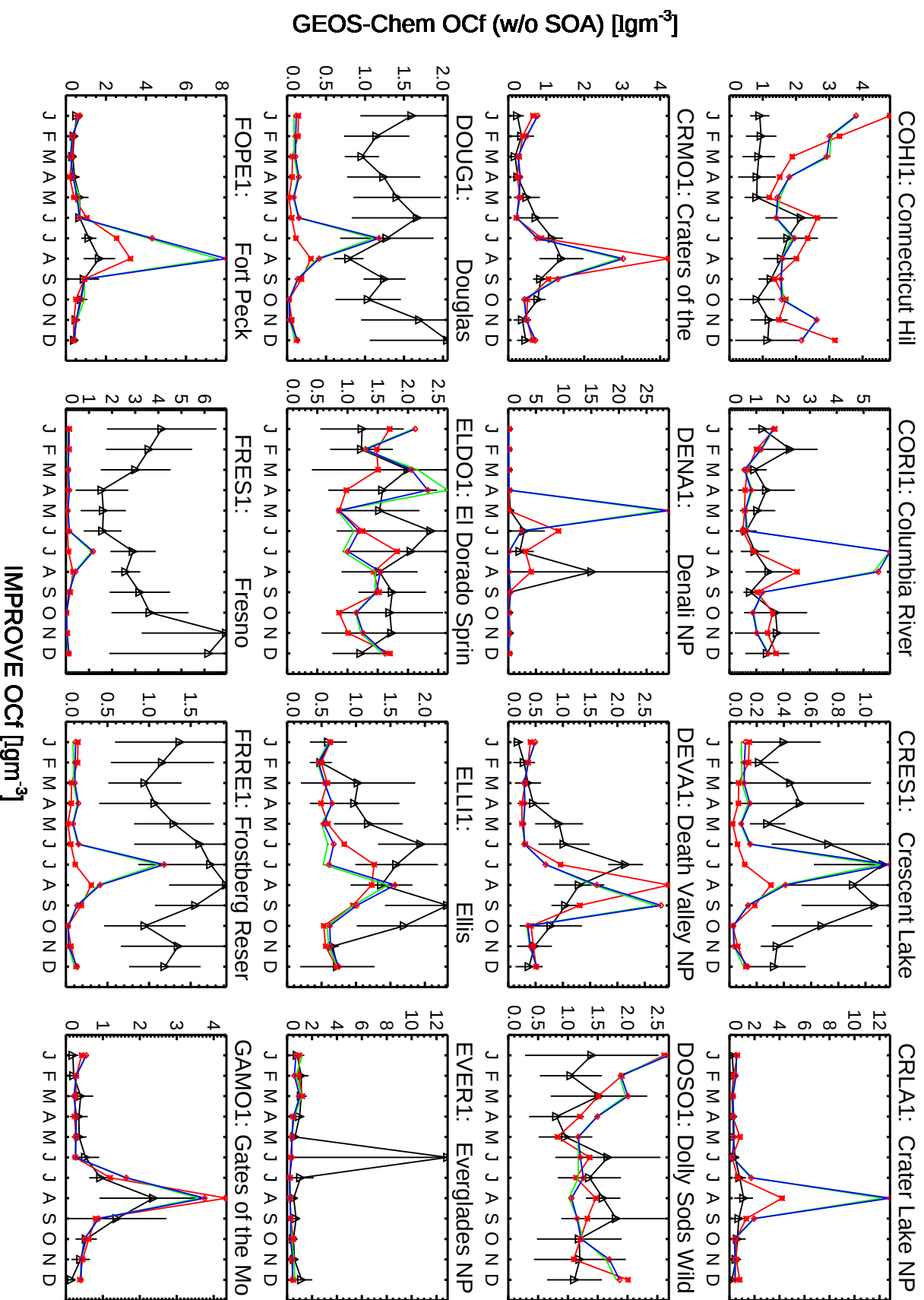
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



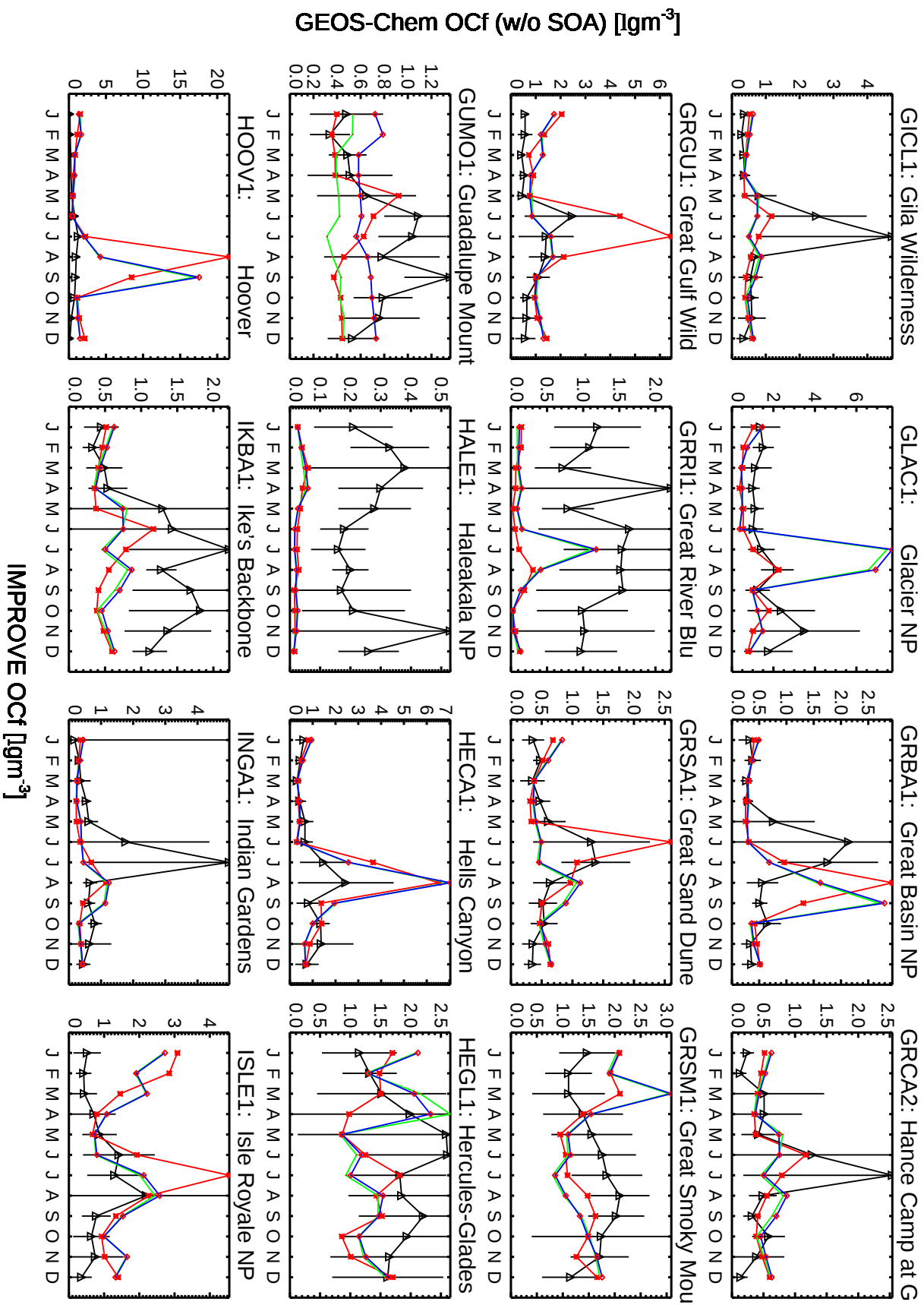
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



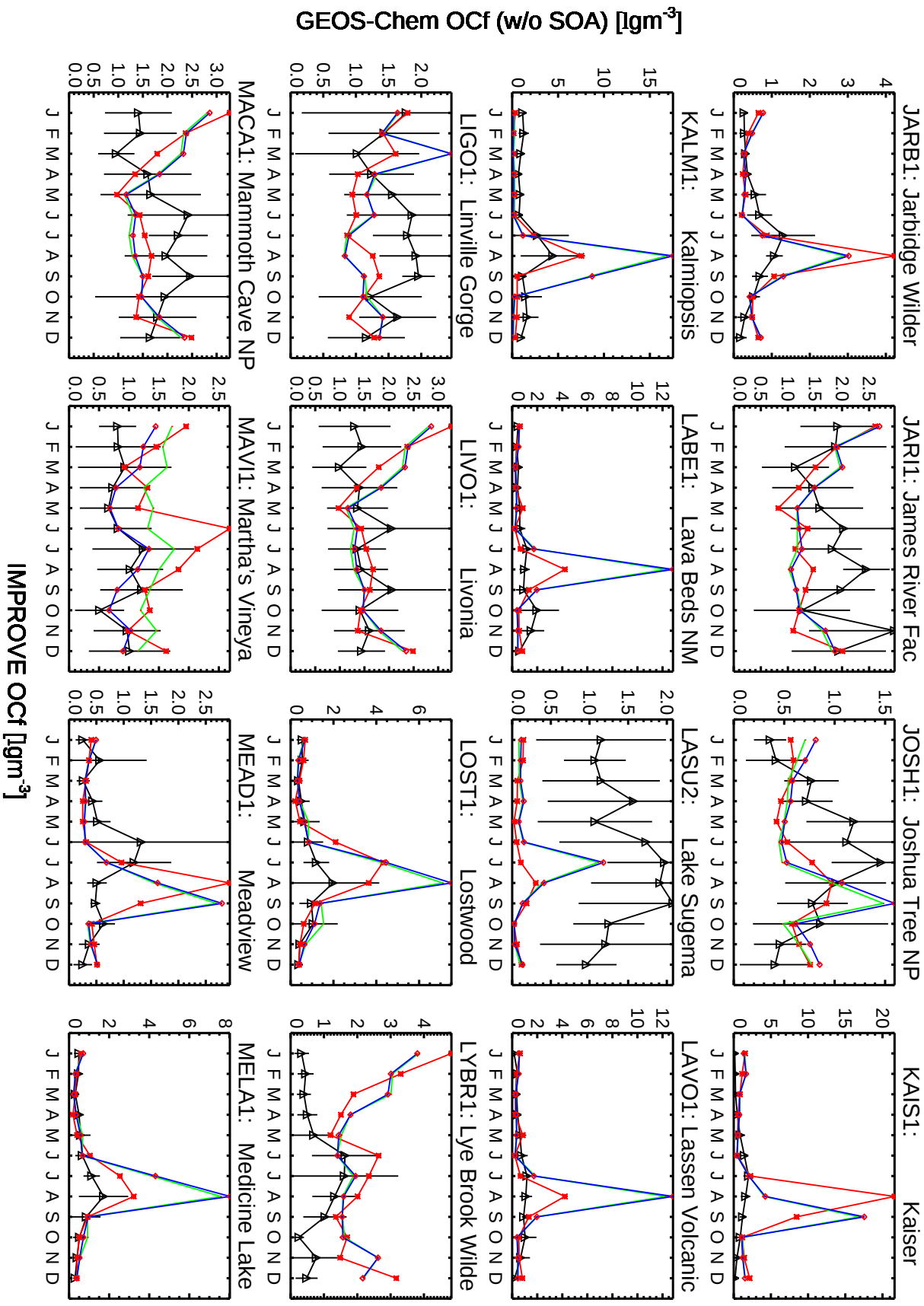
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



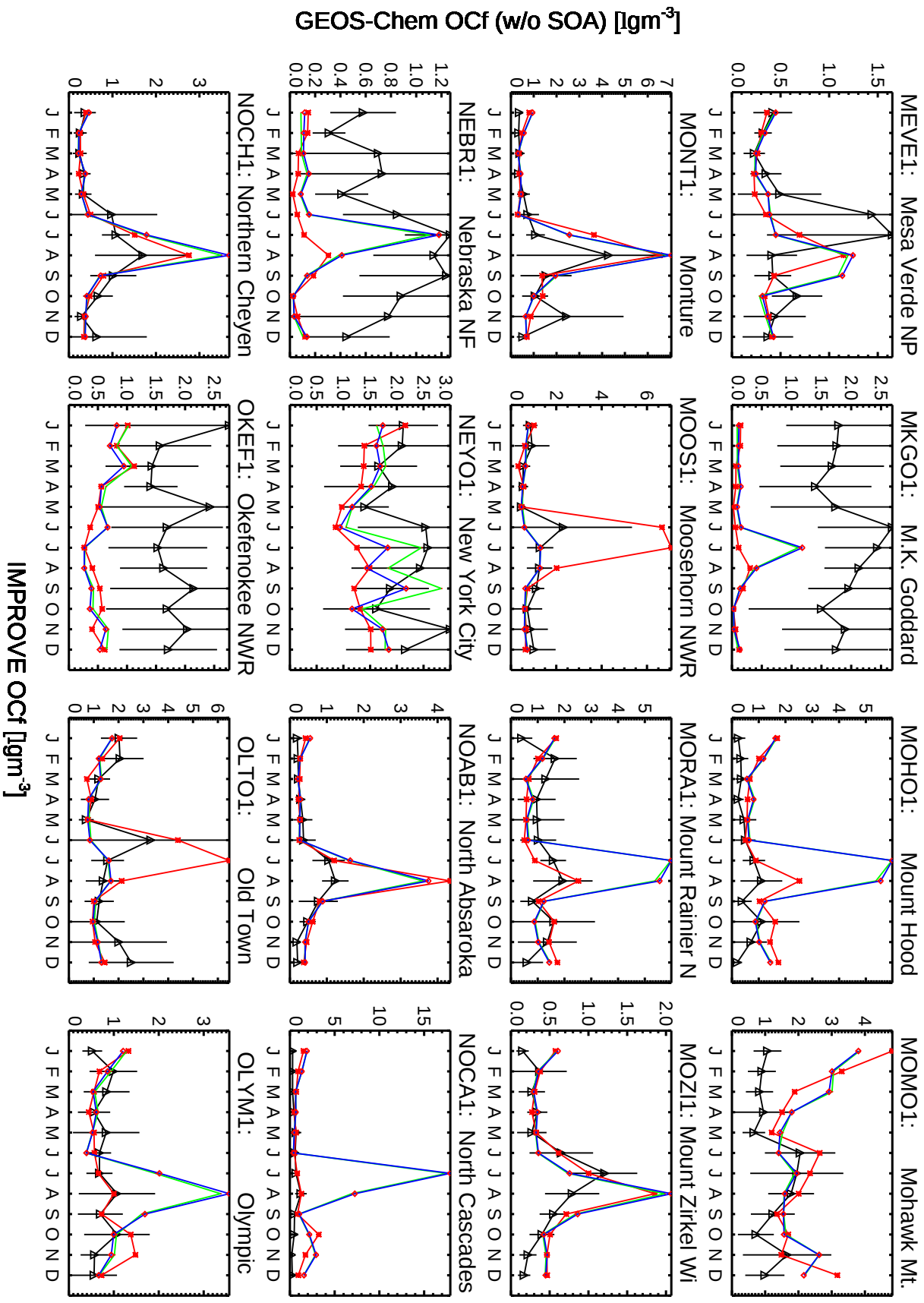
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



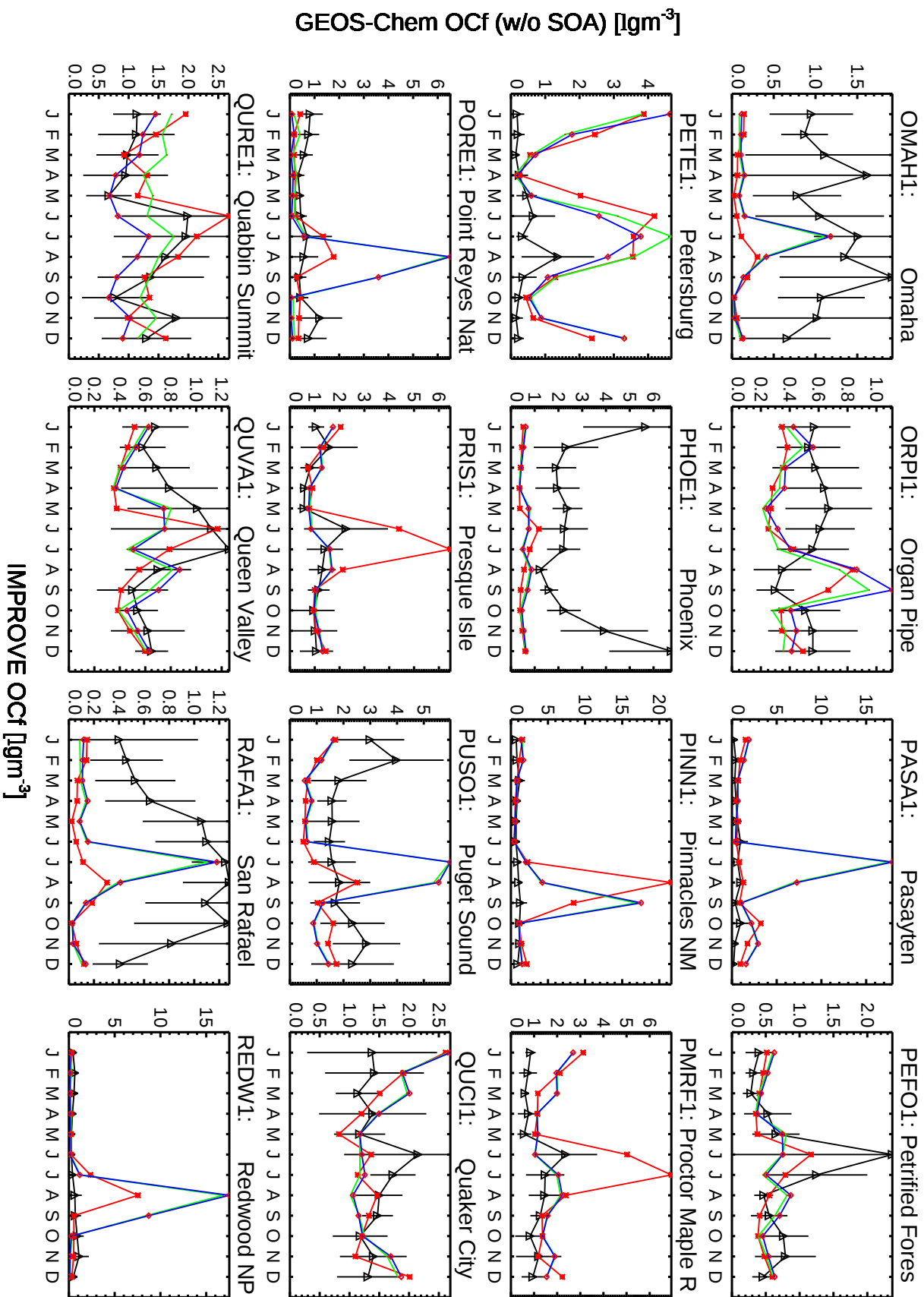
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



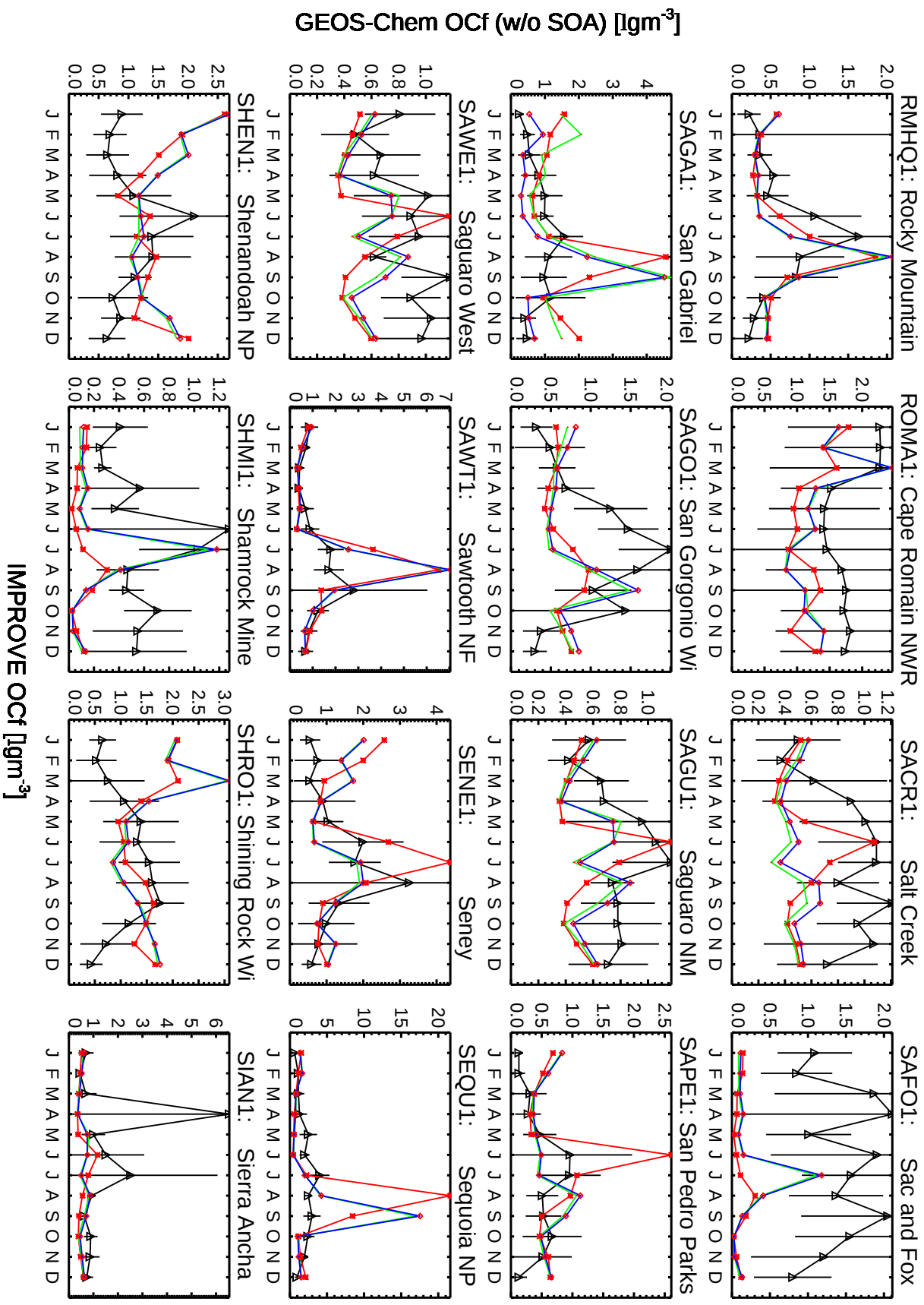
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



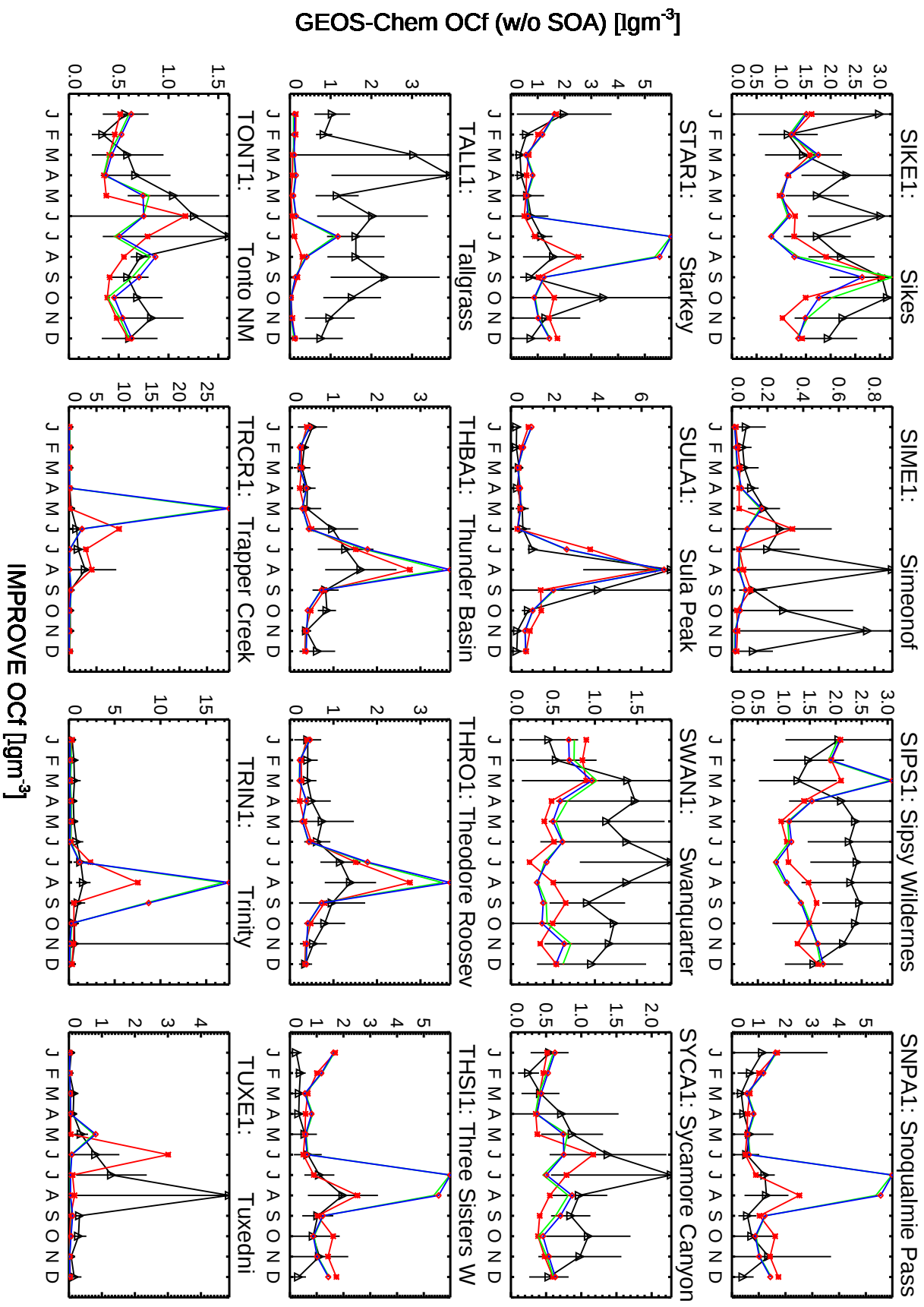
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



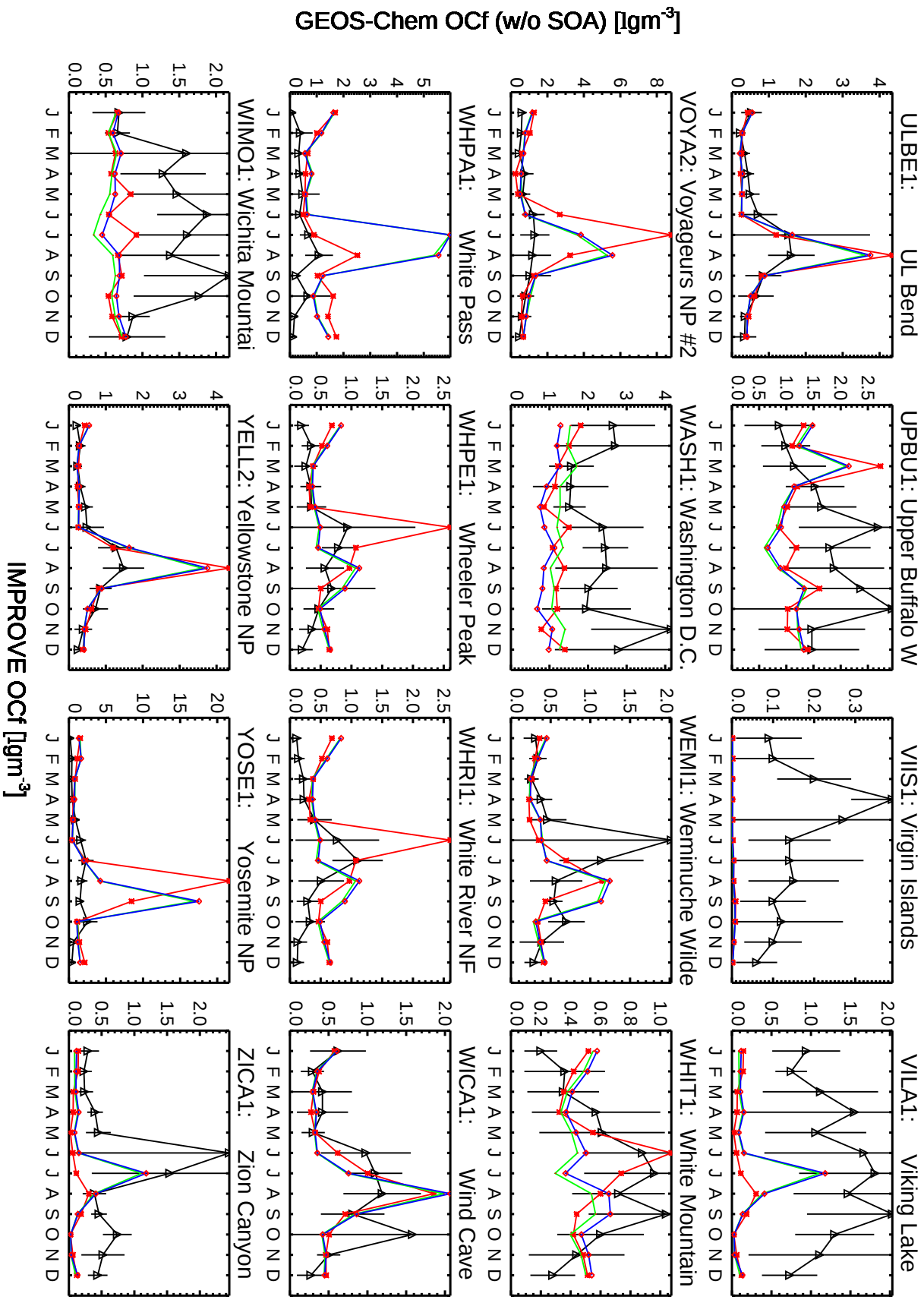
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



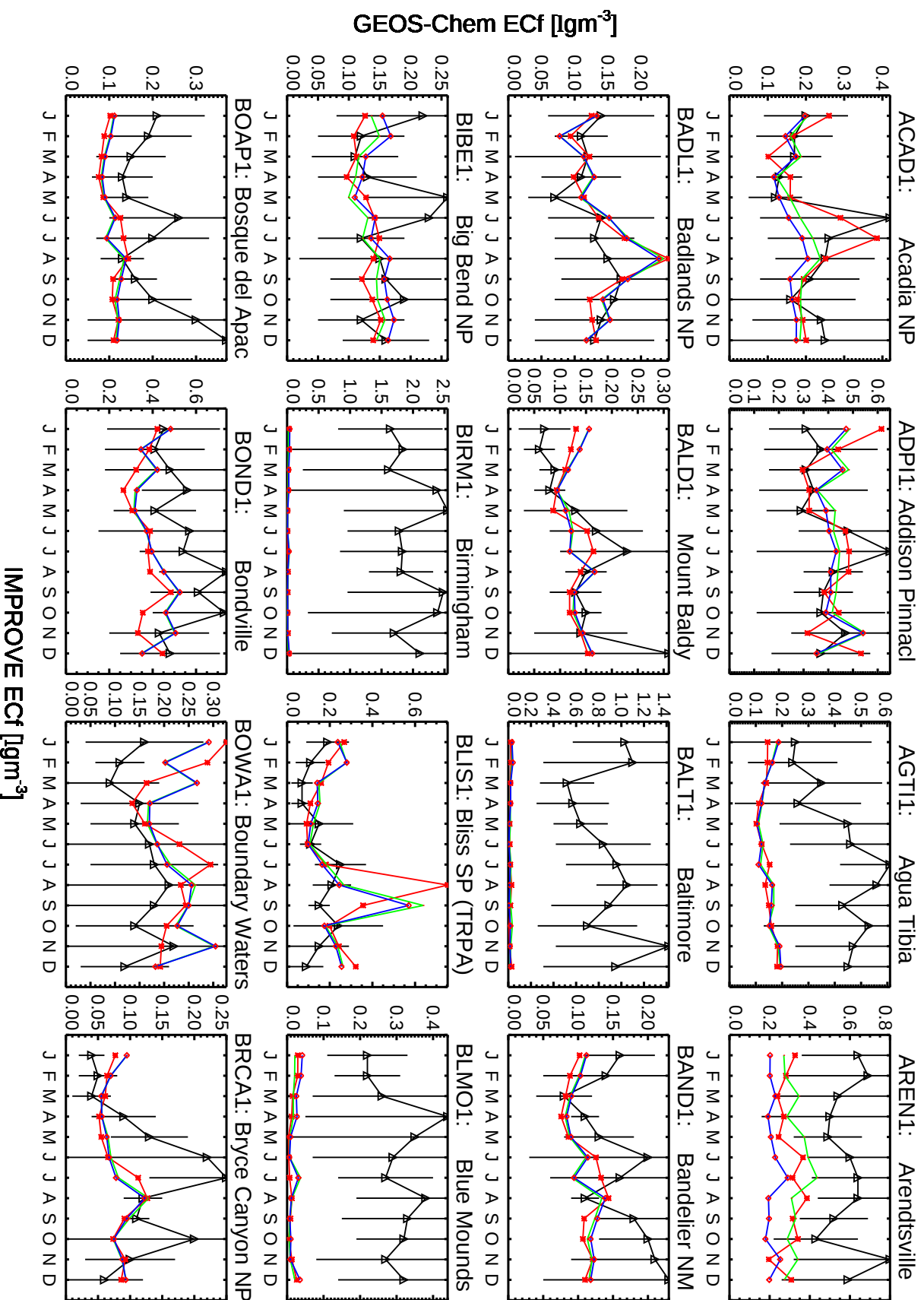
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



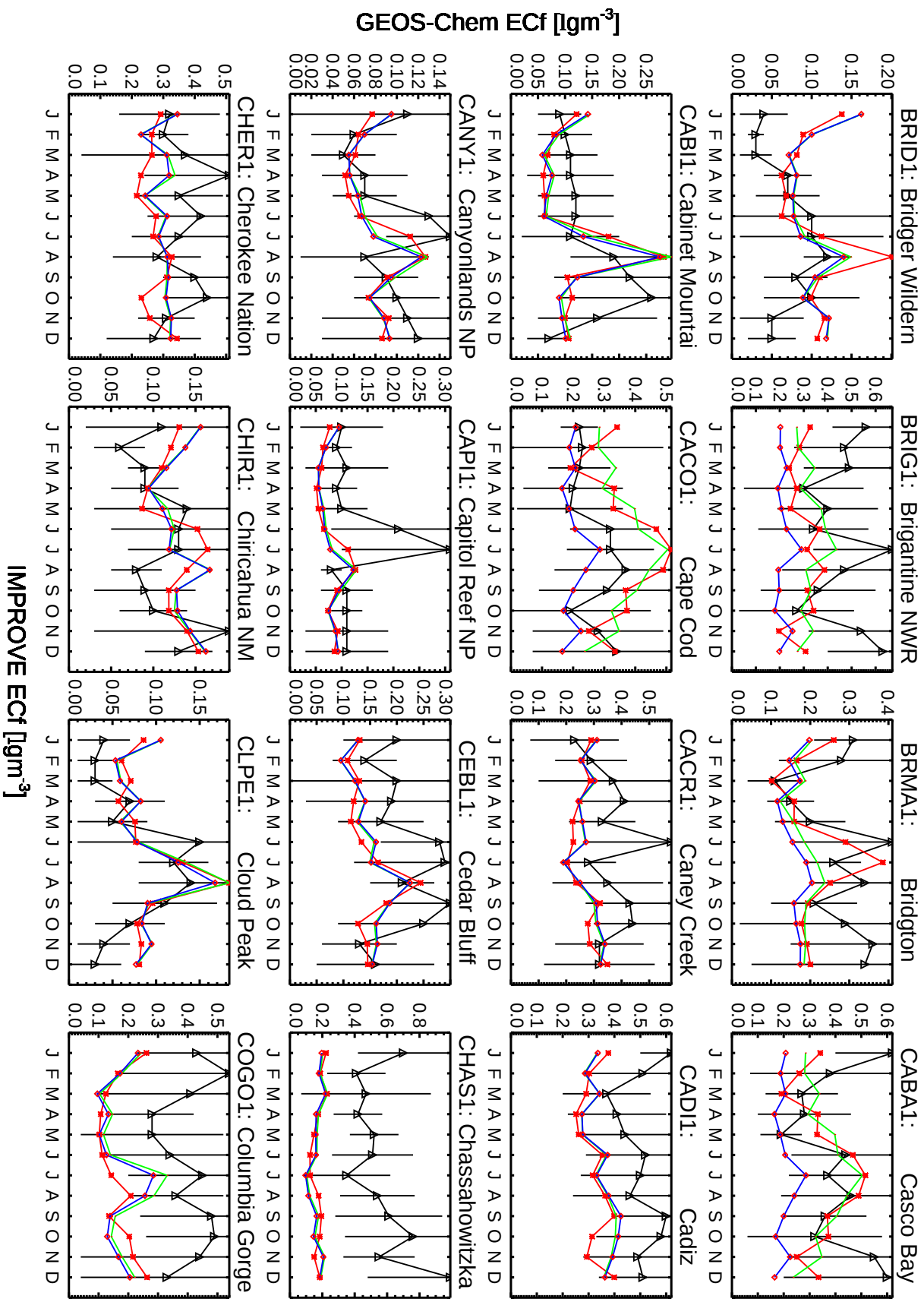
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



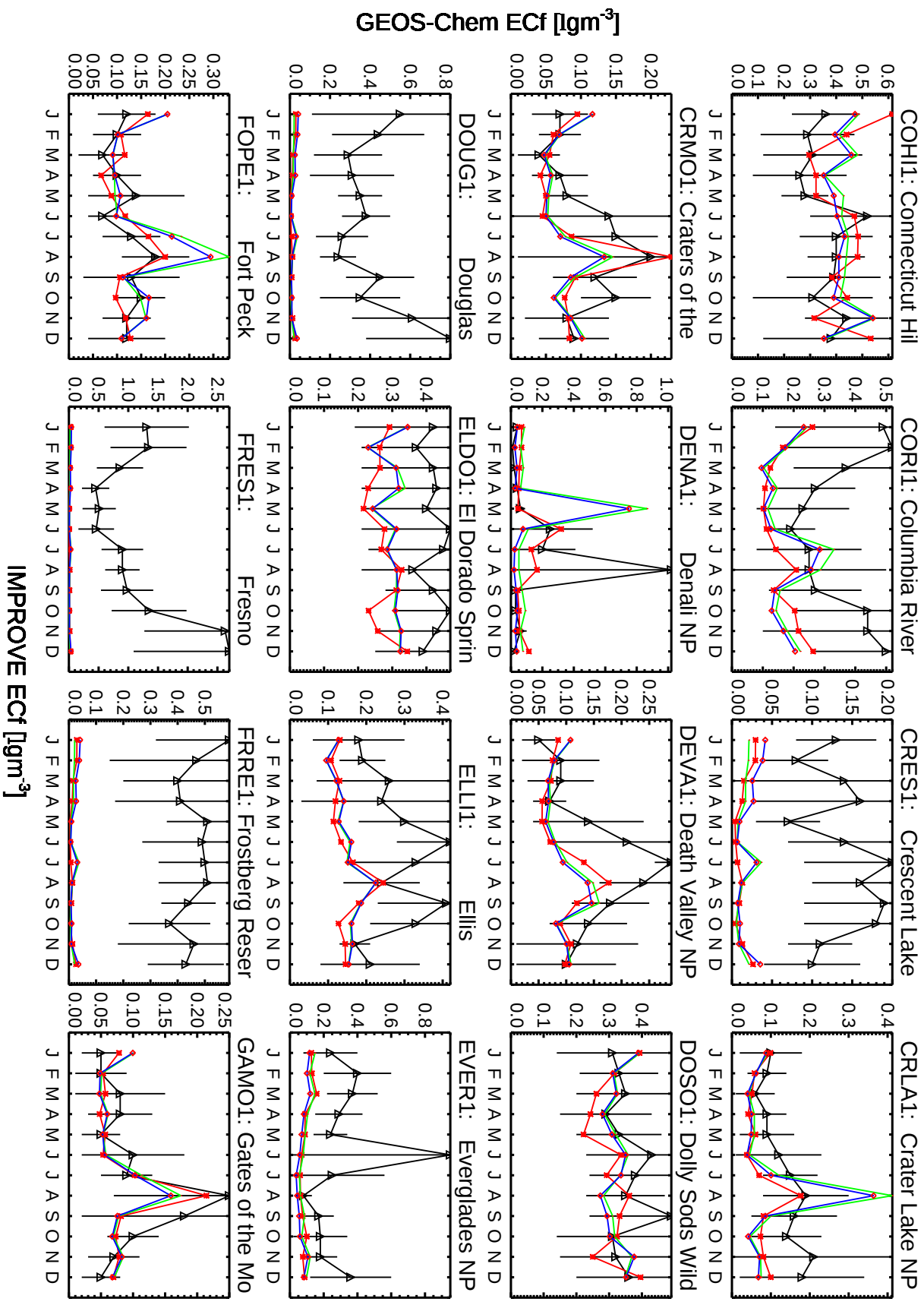
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



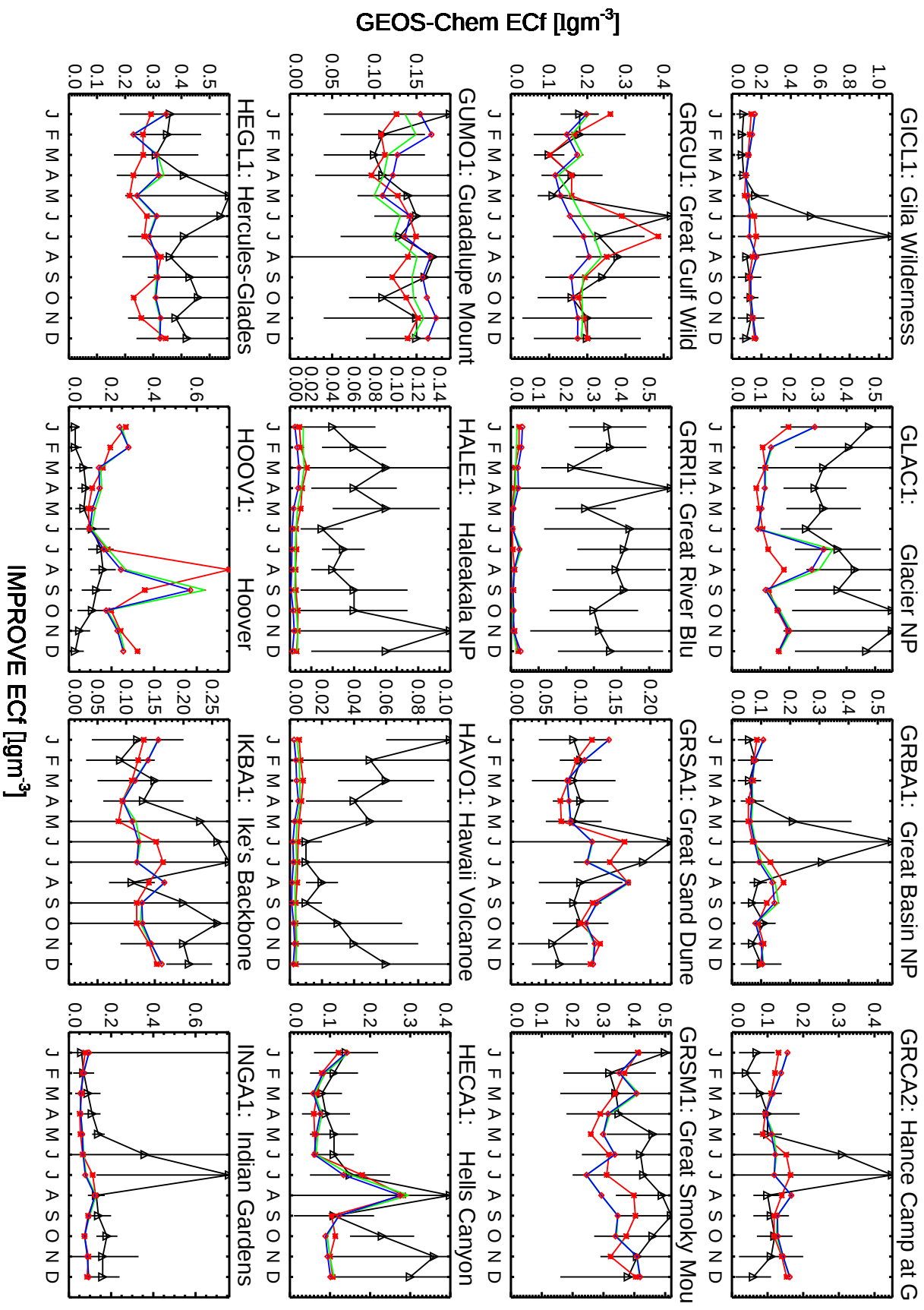
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



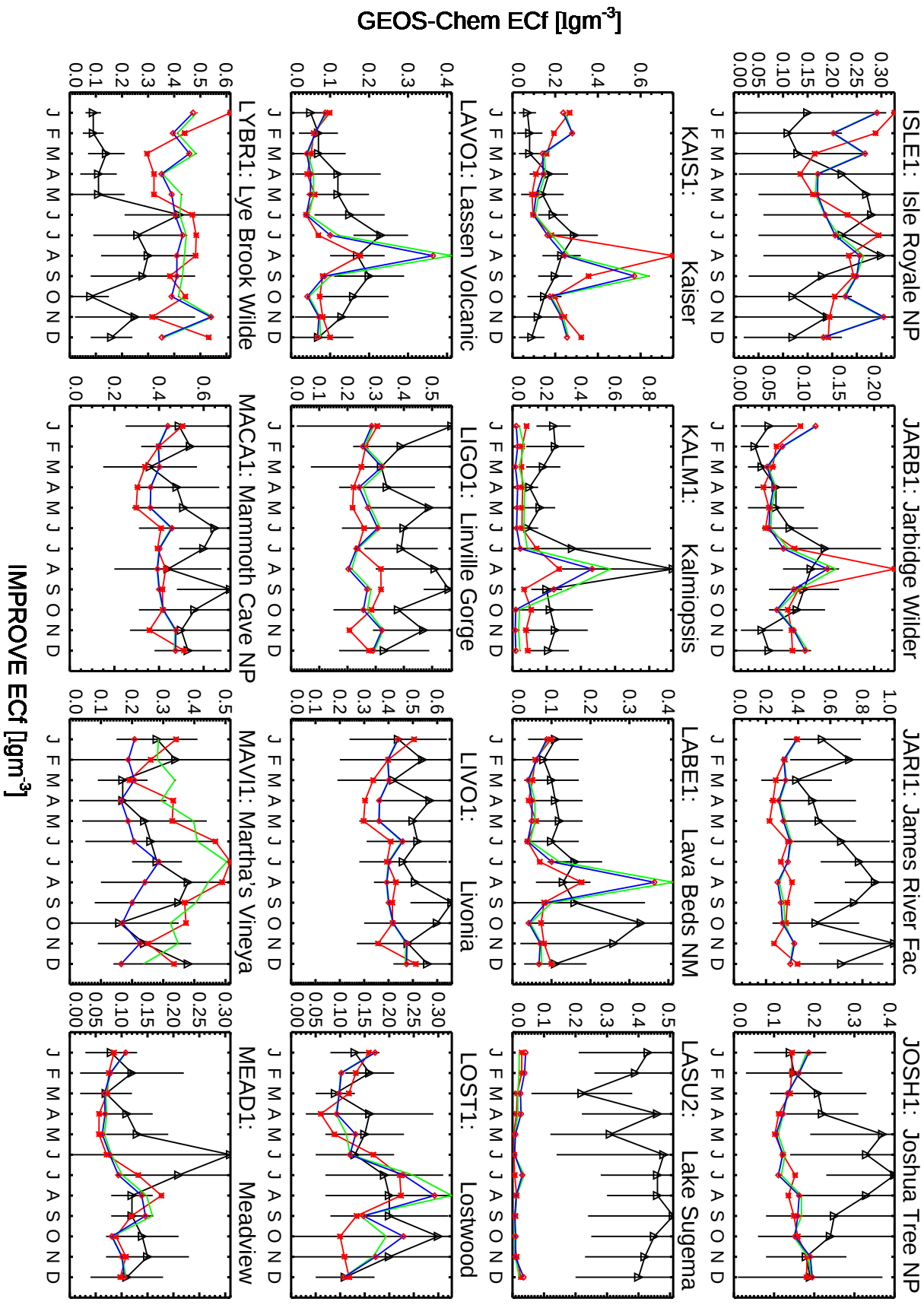
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



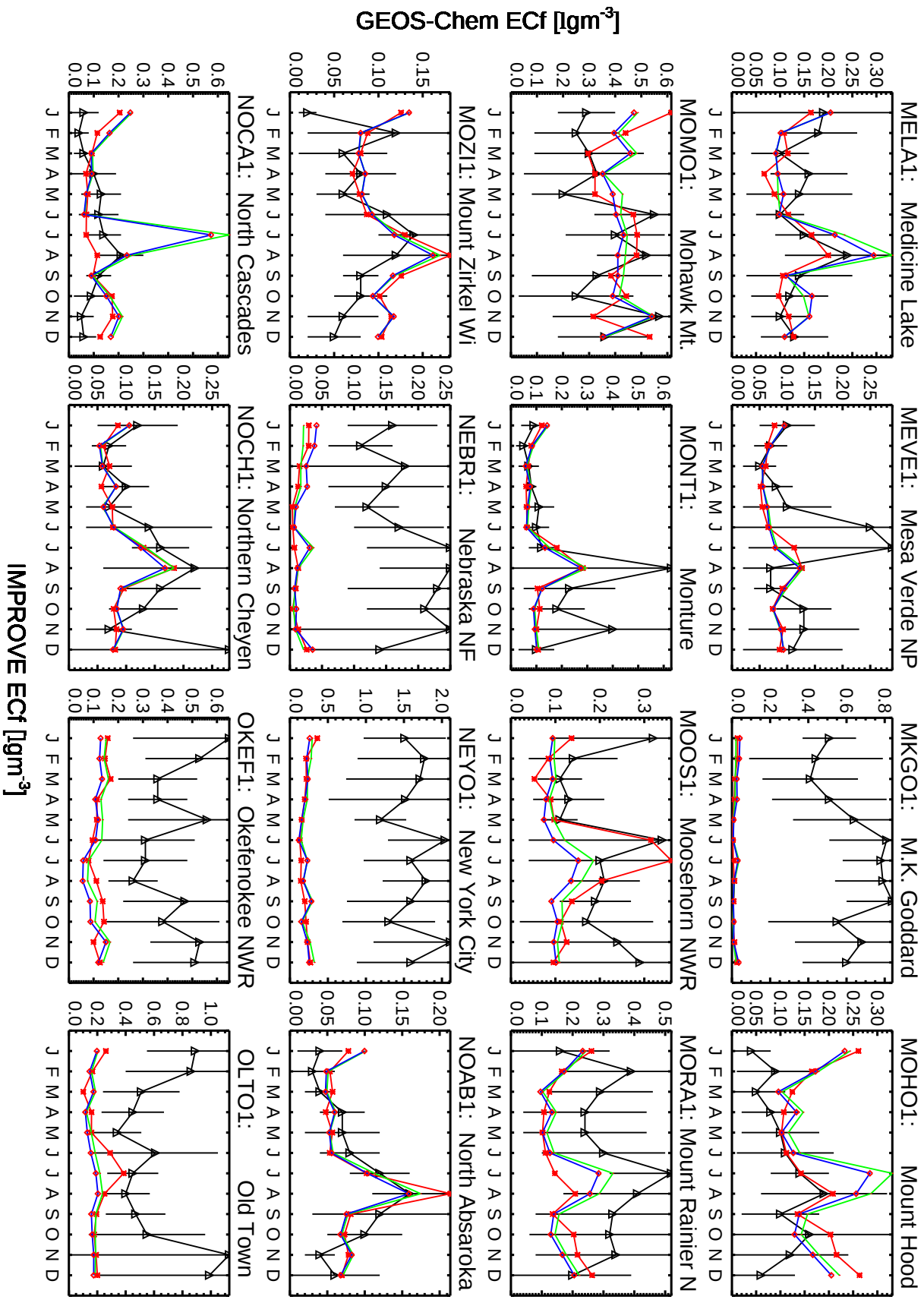
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



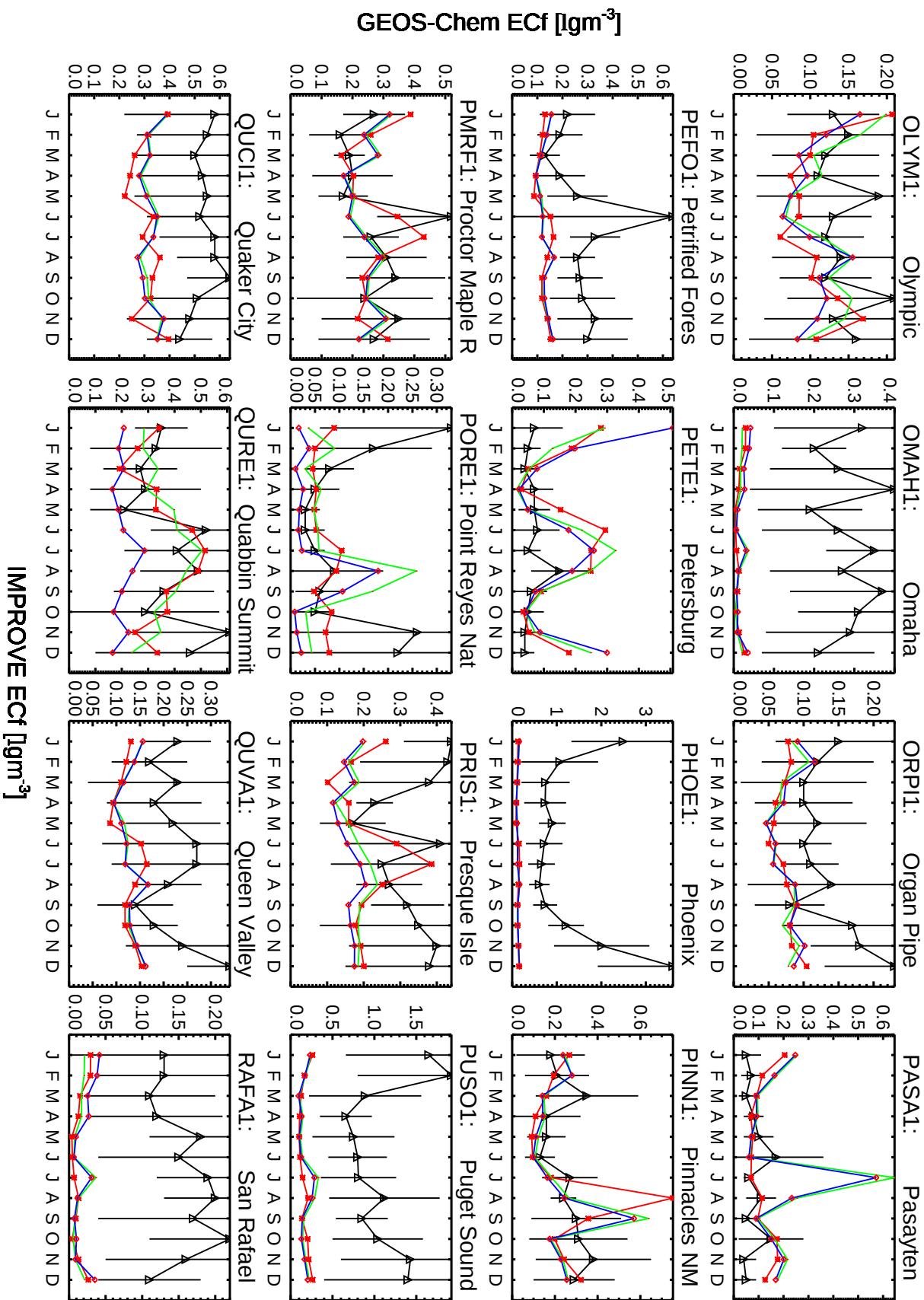
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



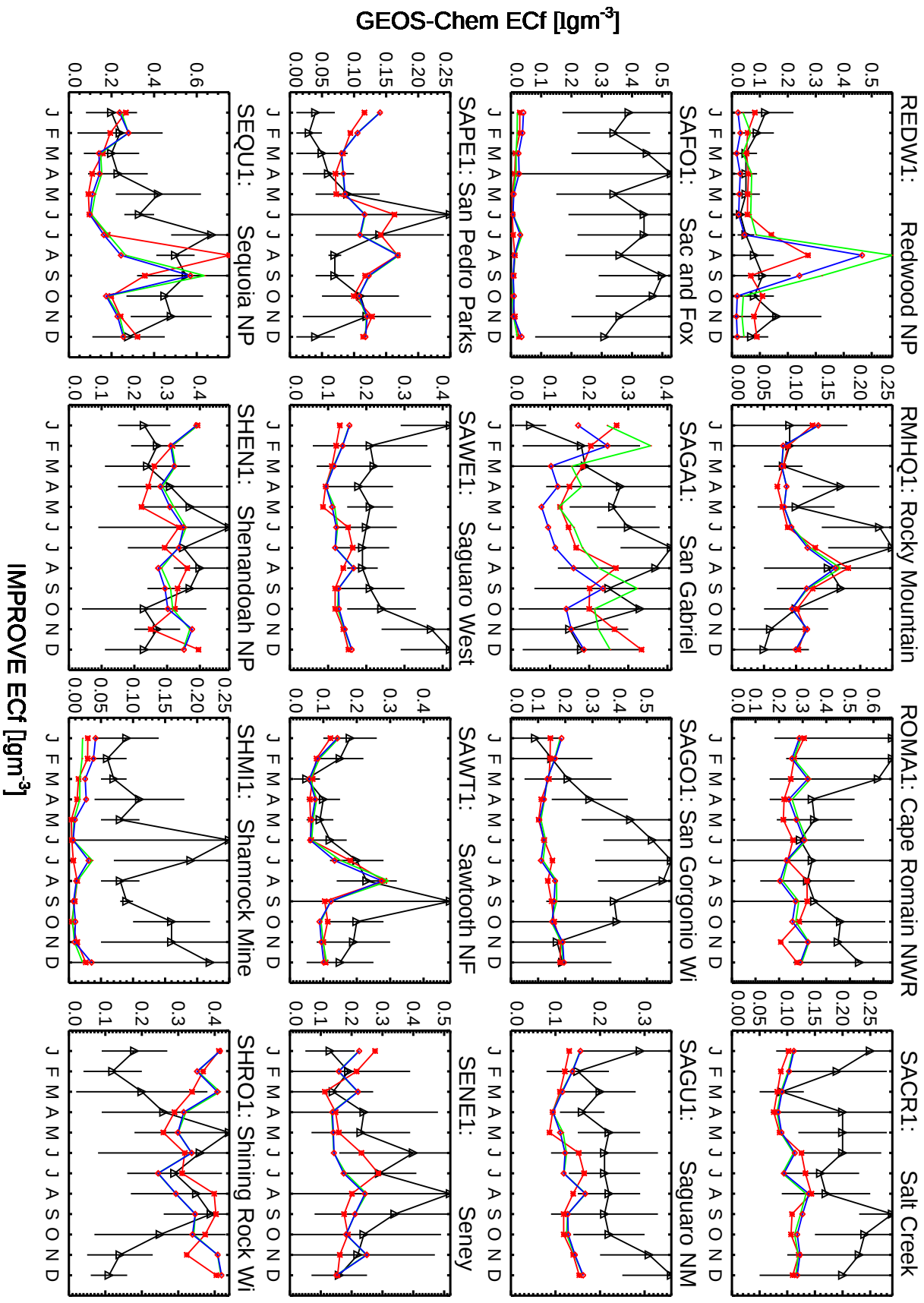
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



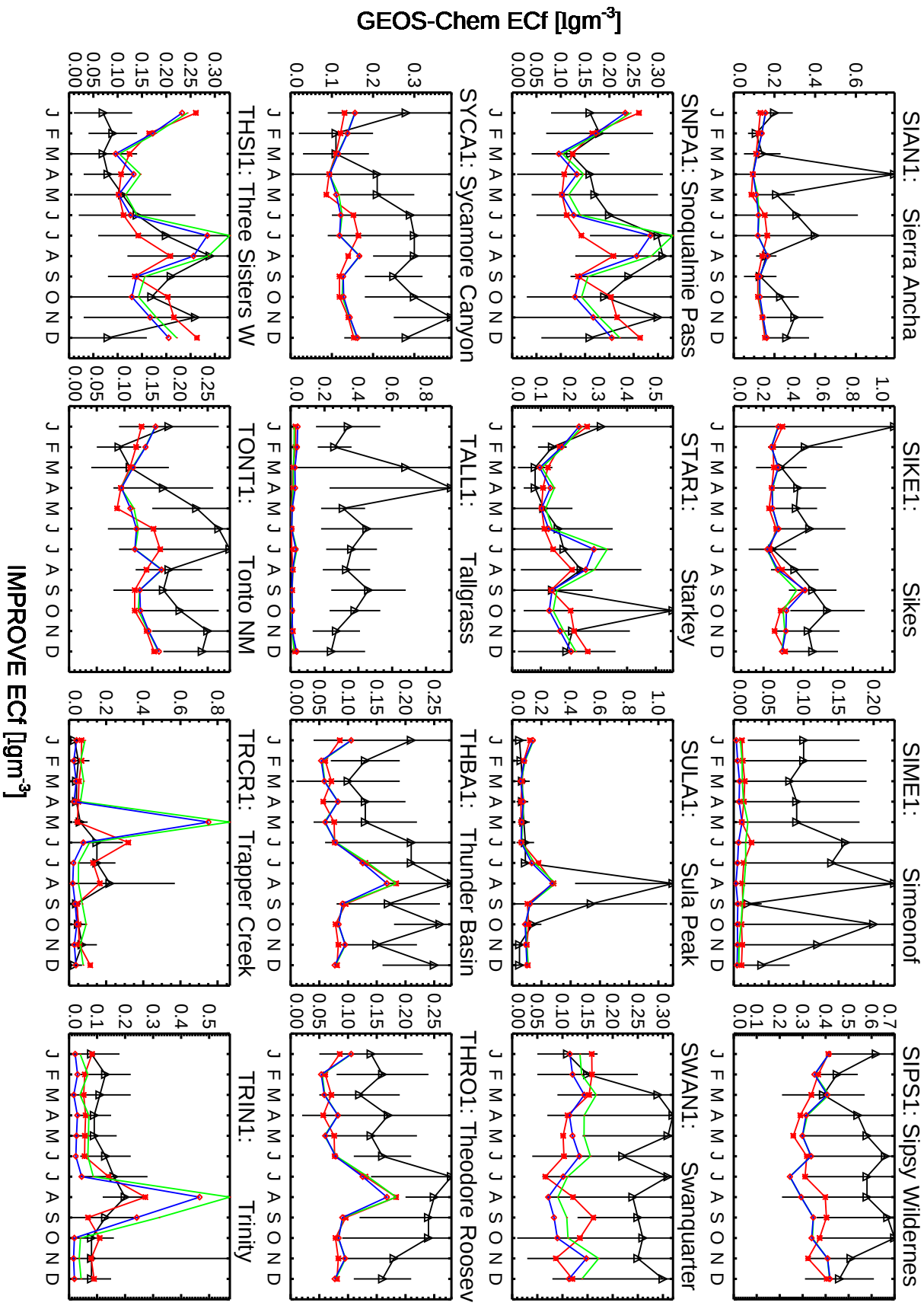
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



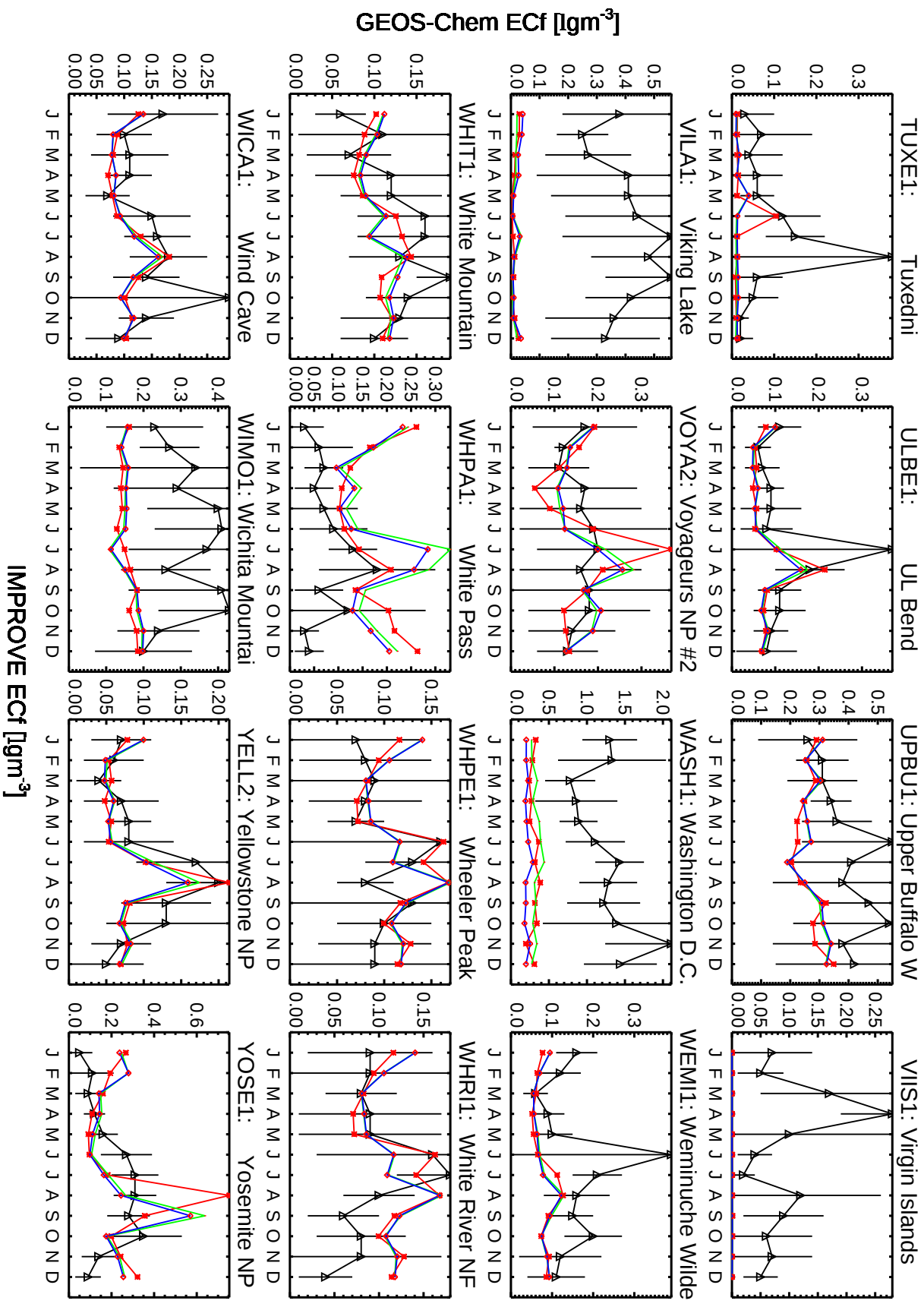
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



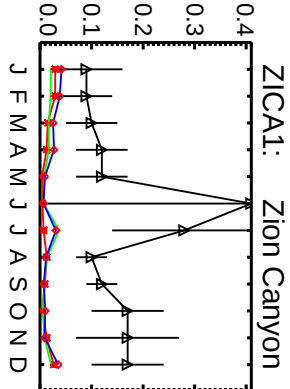
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



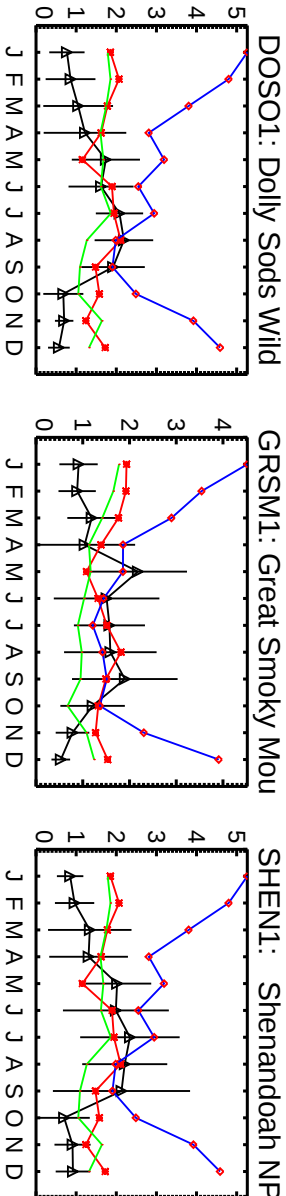
Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



GEOS-Chem ECf [ $\text{lgm}^{-3}$ ]

IMPROVE ECf [ $\text{lgm}^{-3}$ ]

Red: v11-02e-Run0 (2013); Green: v11-02e-Run1 (2016); Blue: v11-02f-Run0 (2013)



GEOS-Chem  $\text{NH}_4\text{f}$  [ $\mu\text{gm}^{-3}$ ]

IMPROVE  $\text{NH}_4\text{f}$  [ $\mu\text{gm}^{-3}$ ]