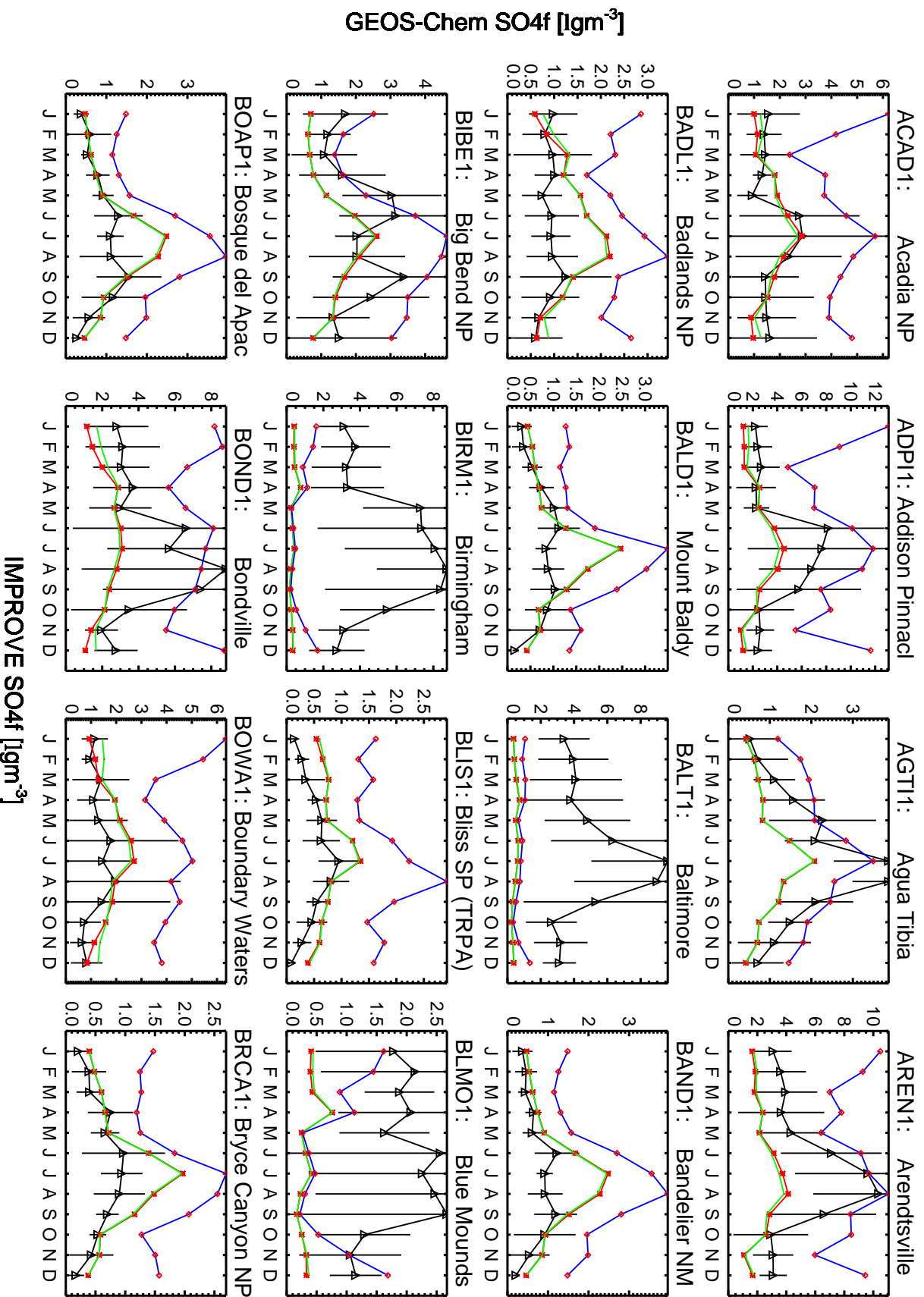
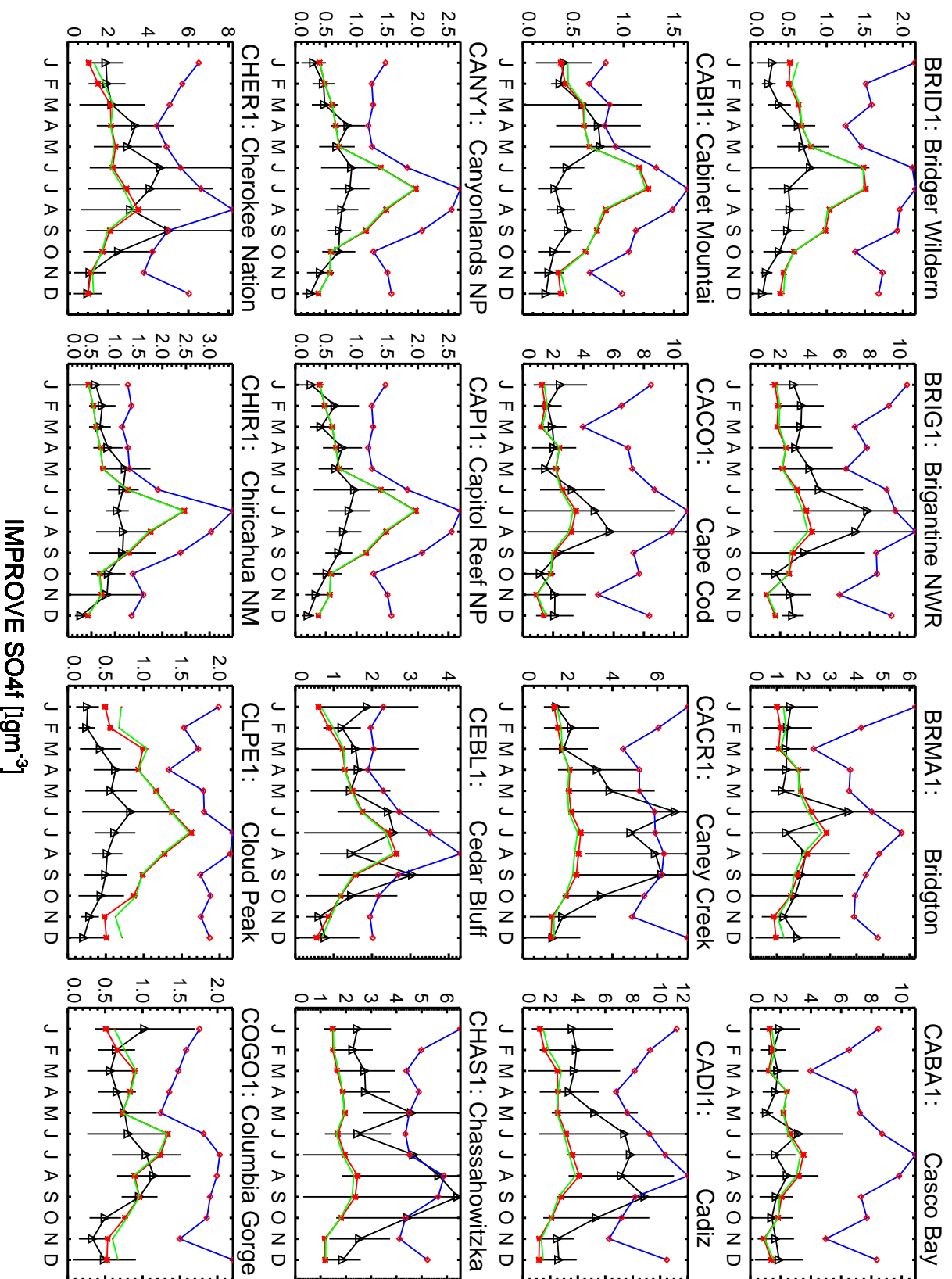


Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



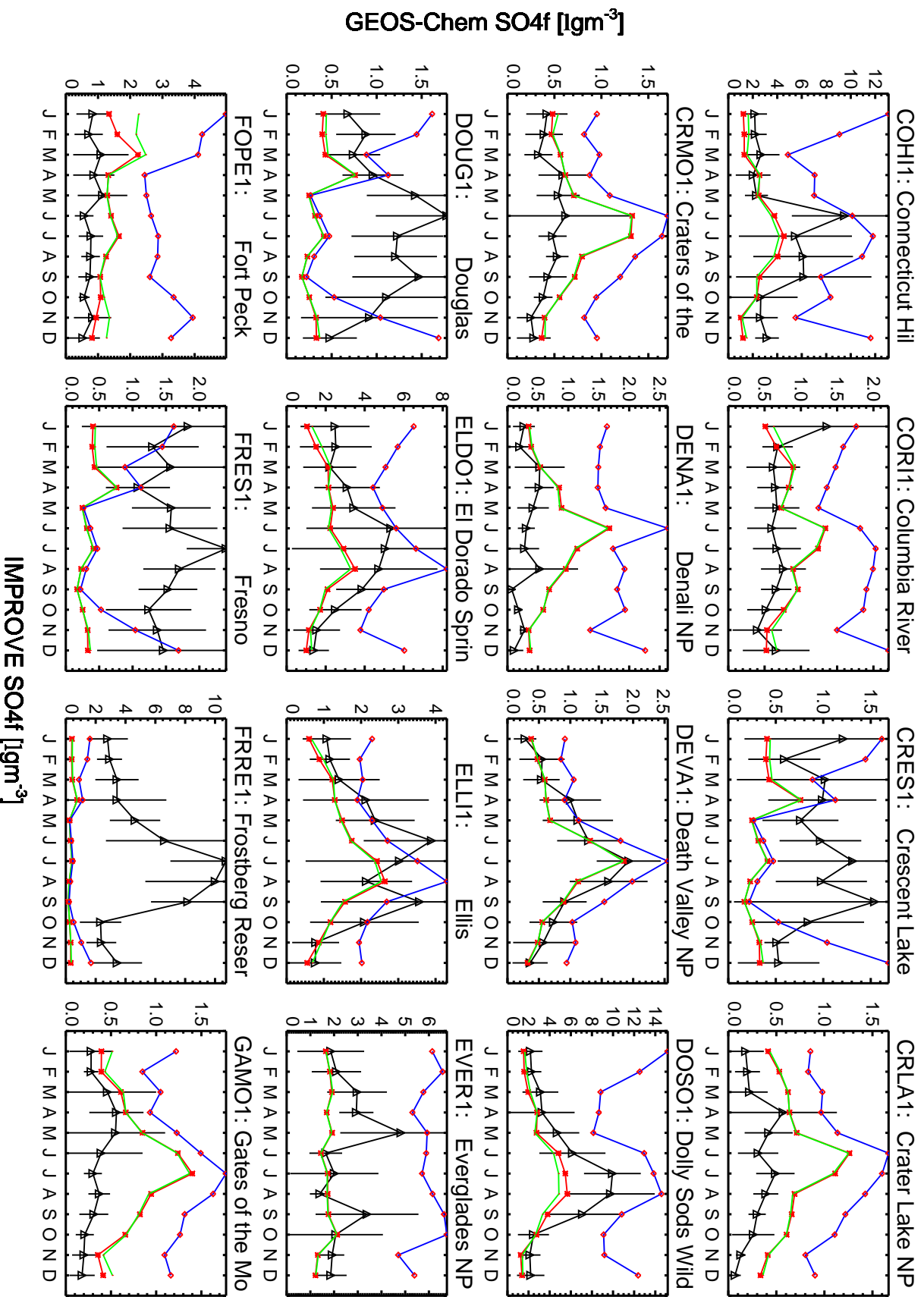
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

GEOS-Chem SO<sub>4</sub>f [lgm<sup>-3</sup>]



IMPROVE SO<sub>4</sub>f [lgm<sup>-3</sup>]

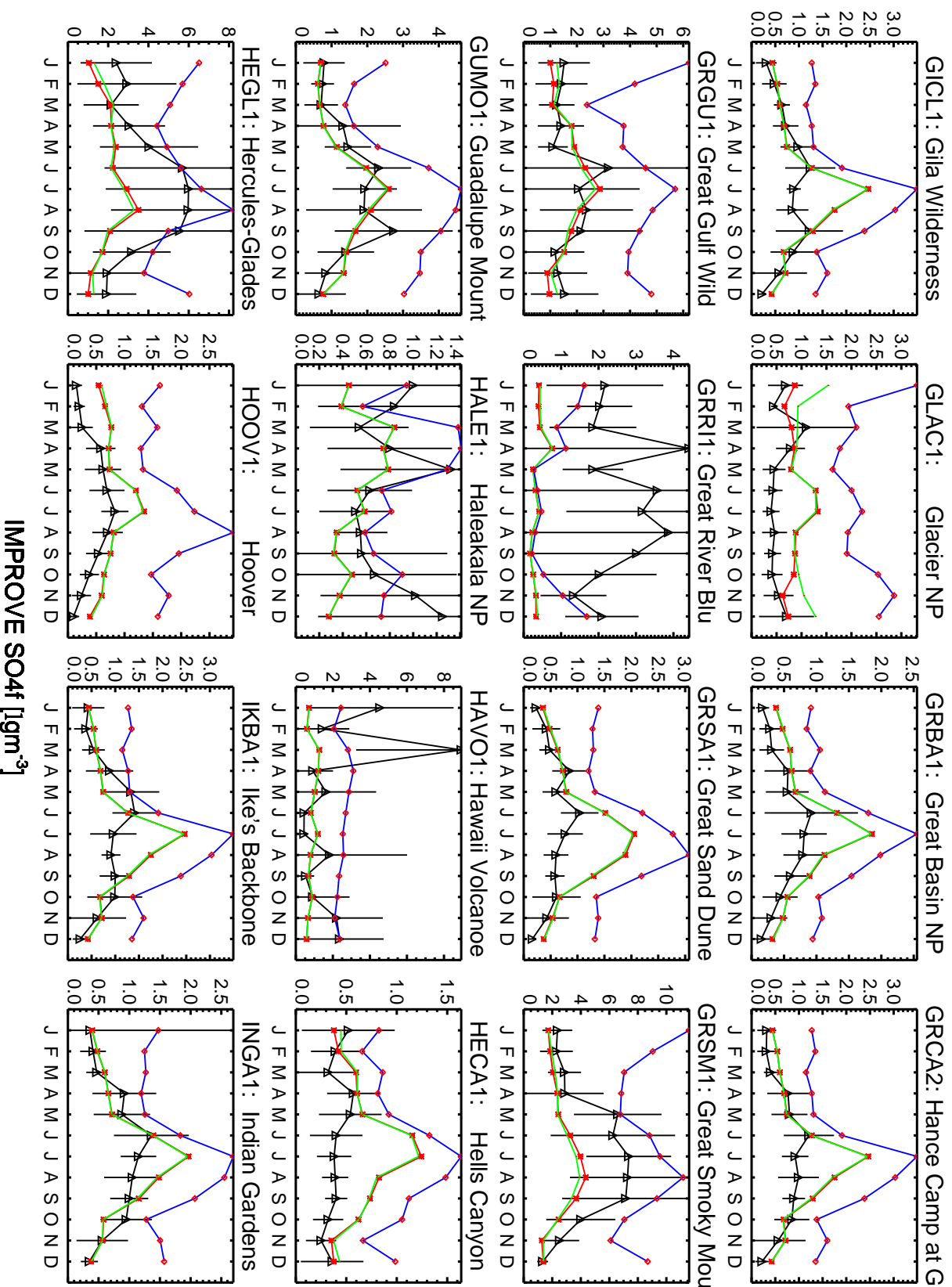
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



IMPROVE SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]

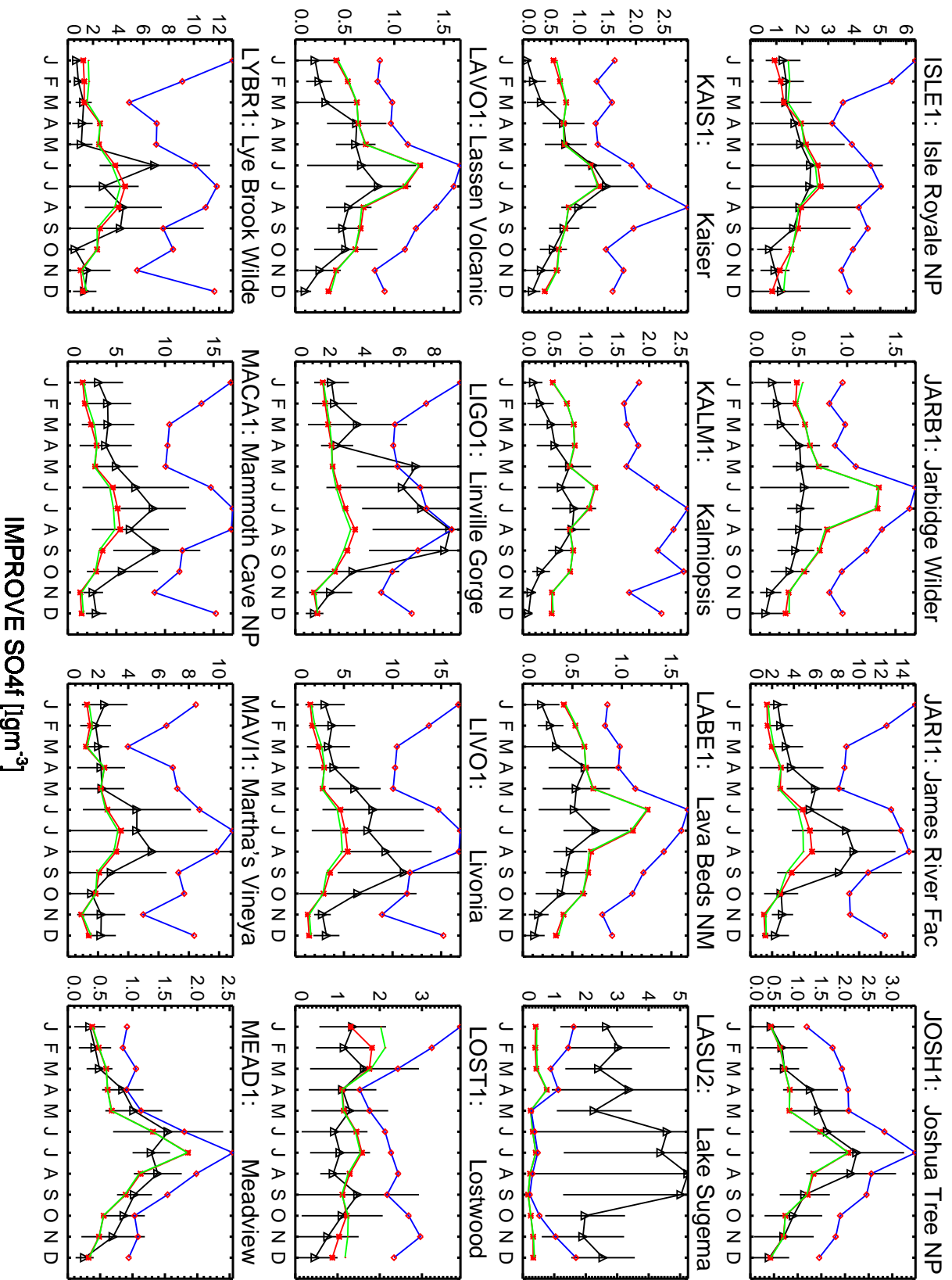
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

GEOS-Chem SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]



Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

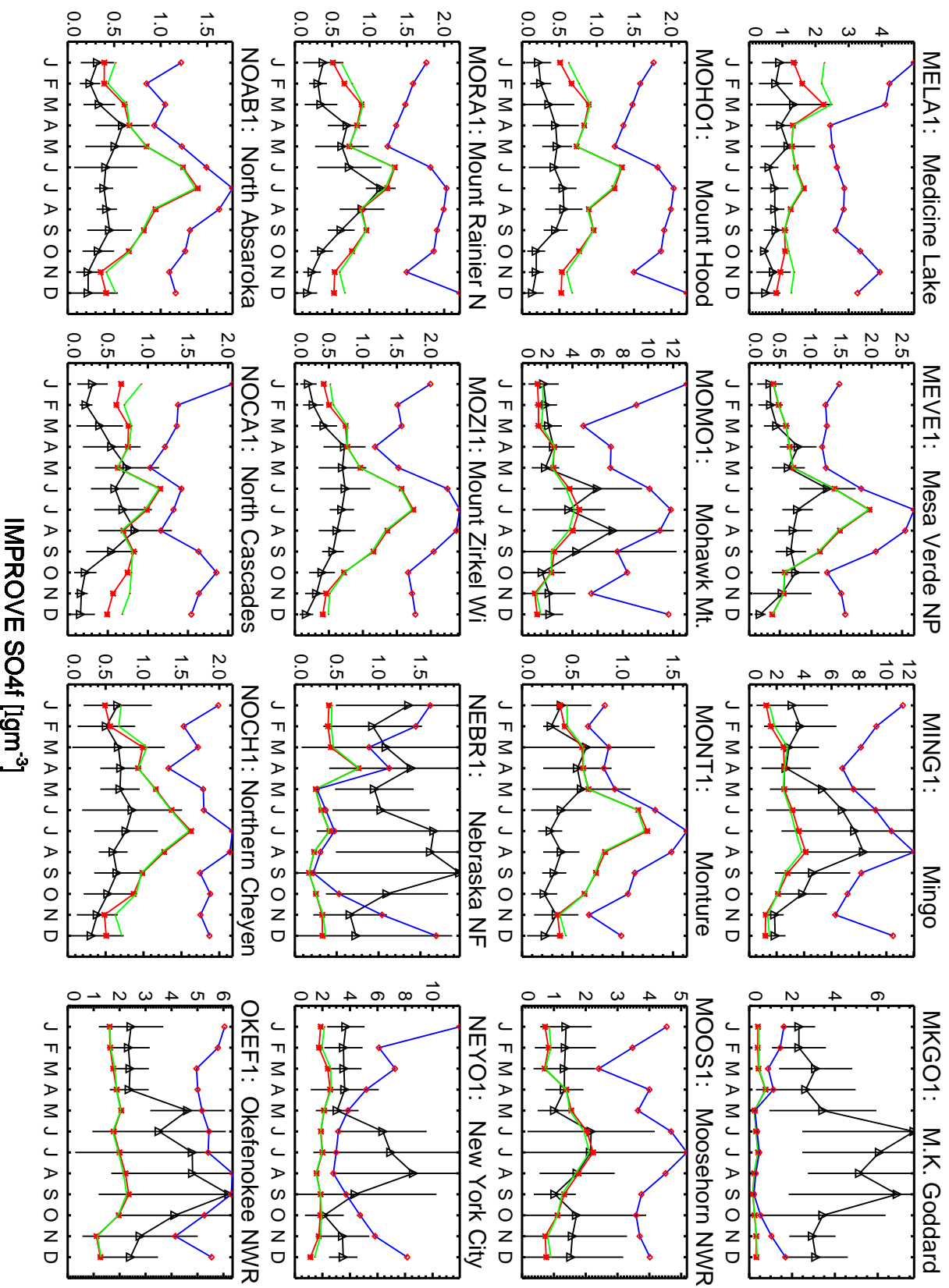
GEOS-Chem SO<sub>4</sub>f [ $\mu\text{gm}^{-3}$ ]



IMPROVE SO<sub>4</sub>f [ $\mu\text{gm}^{-3}$ ]

Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

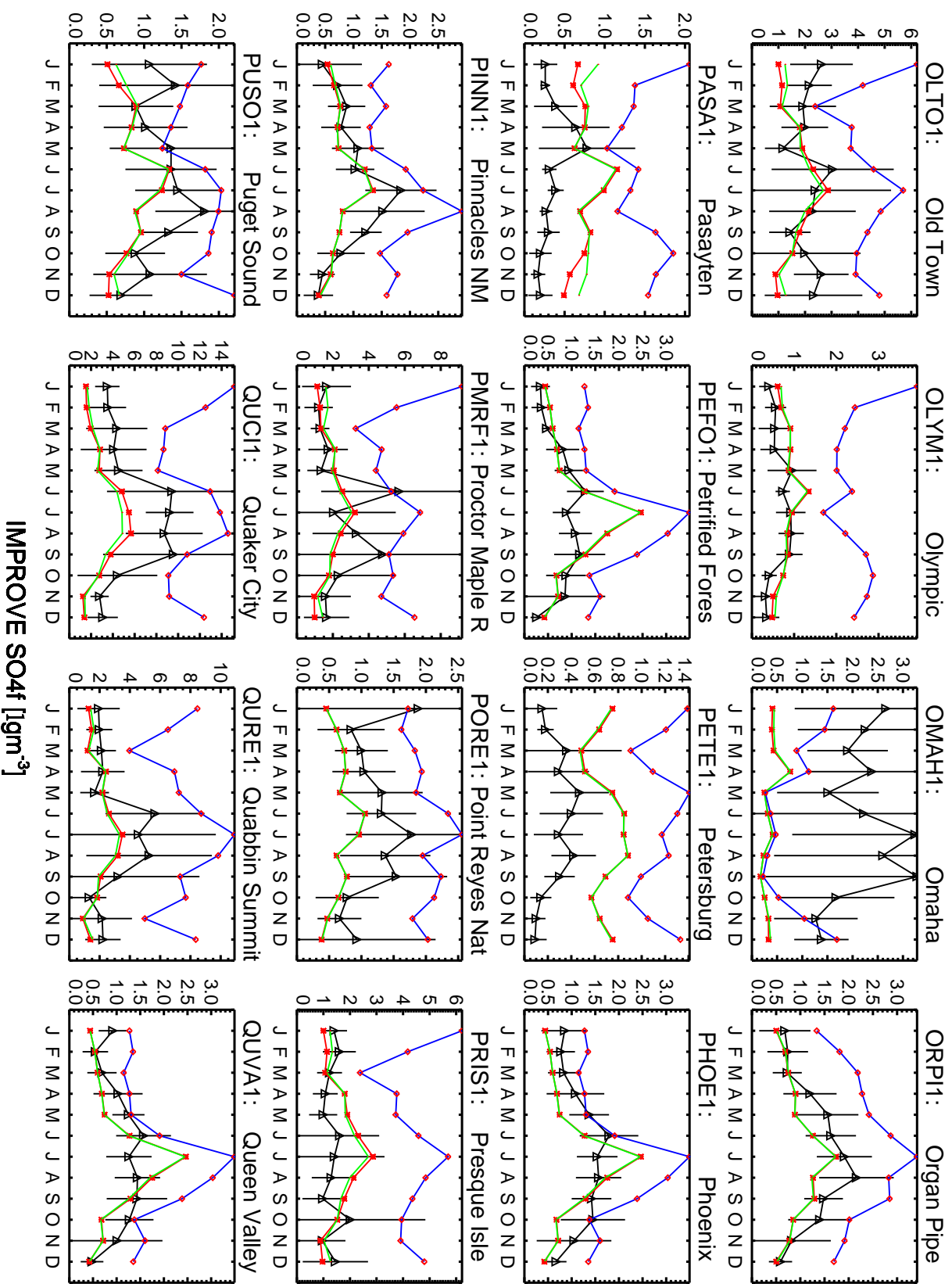
GEOS-Chem SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]



IMPROVE SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]

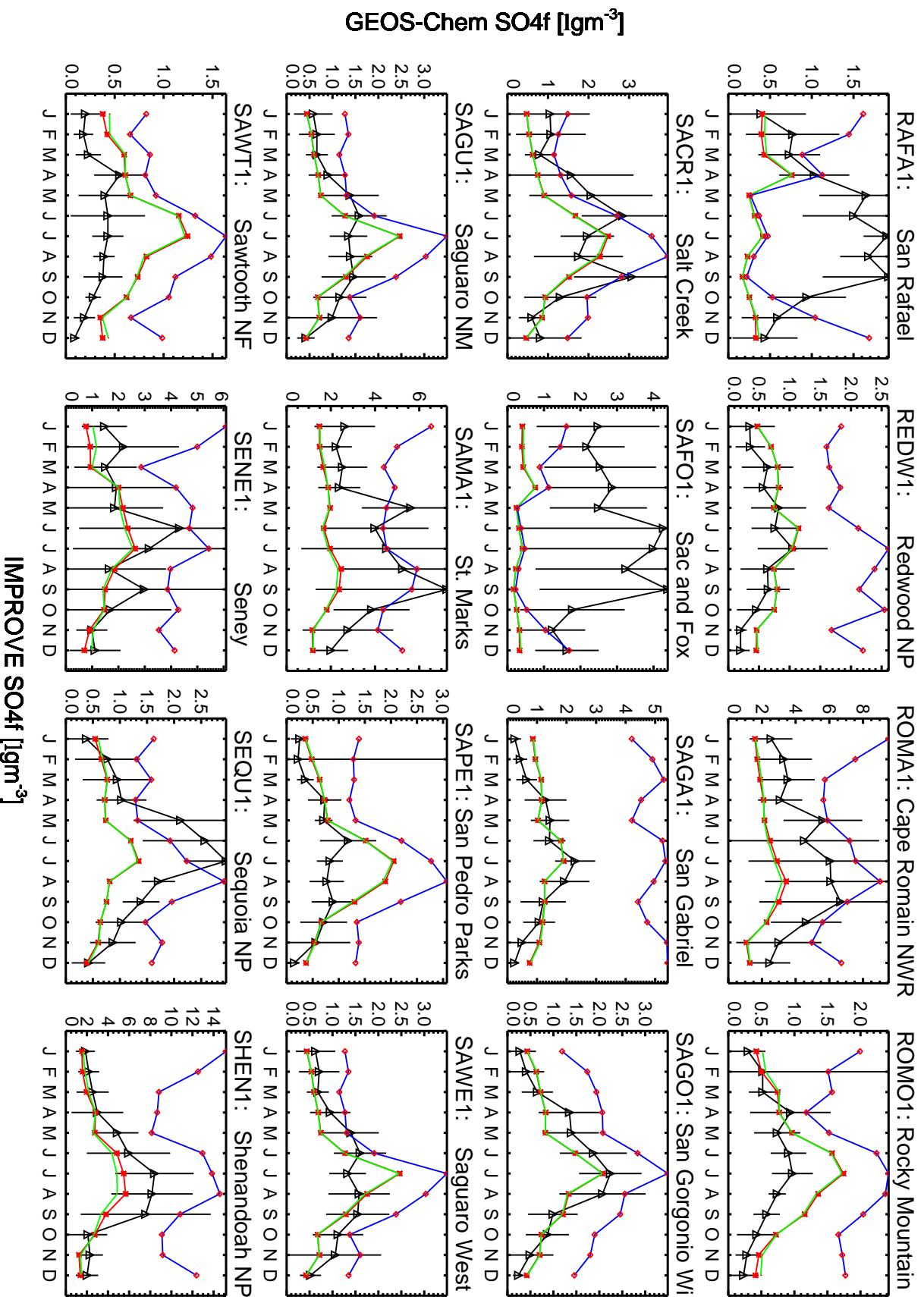
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

GEOS-Chem SO<sub>4</sub>f [lgm<sup>-3</sup>]



IMPROVE SO<sub>4</sub>f [lgm<sup>-3</sup>]

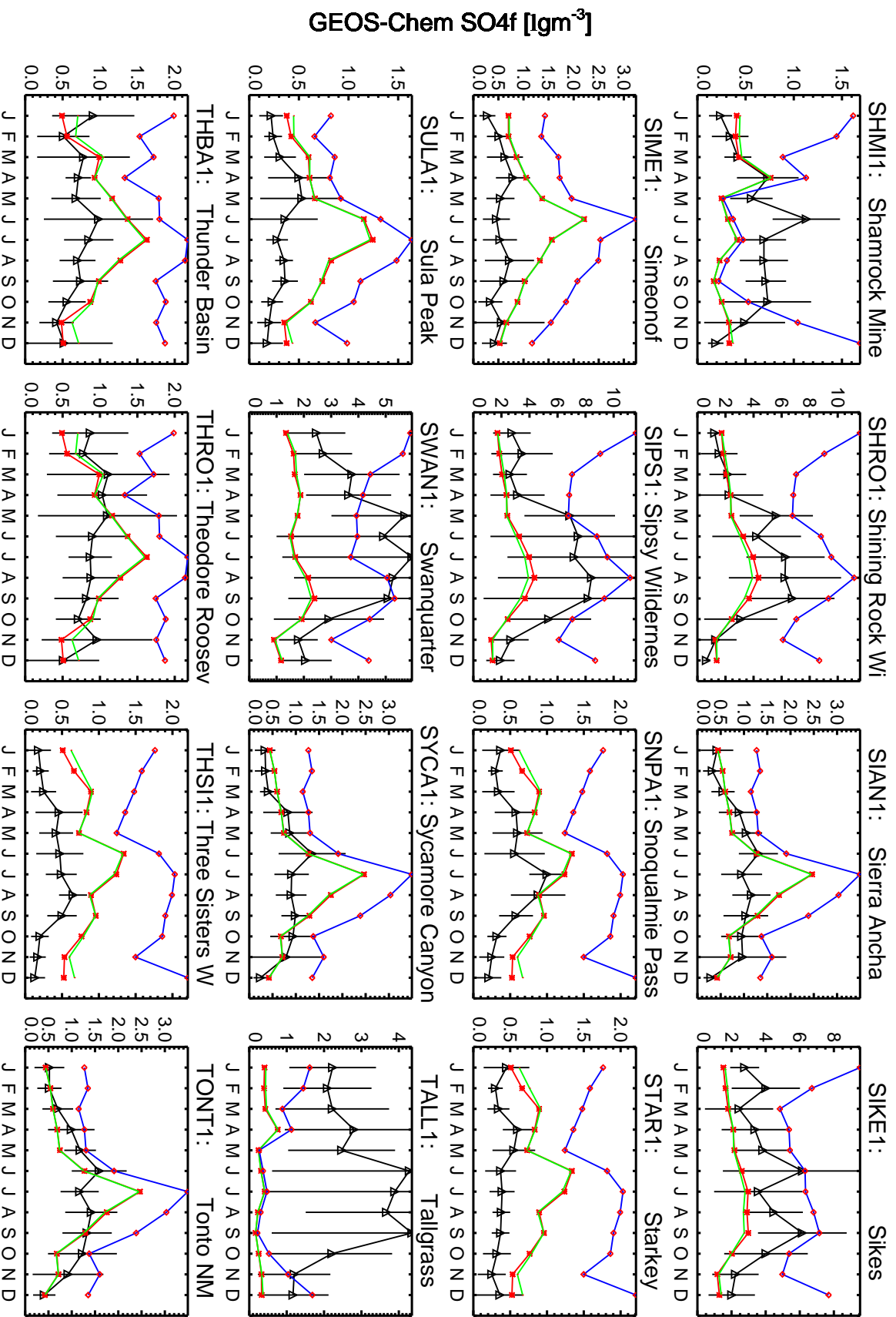
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



IMPROVE SO<sub>4</sub>f [lgm<sup>-3</sup>]



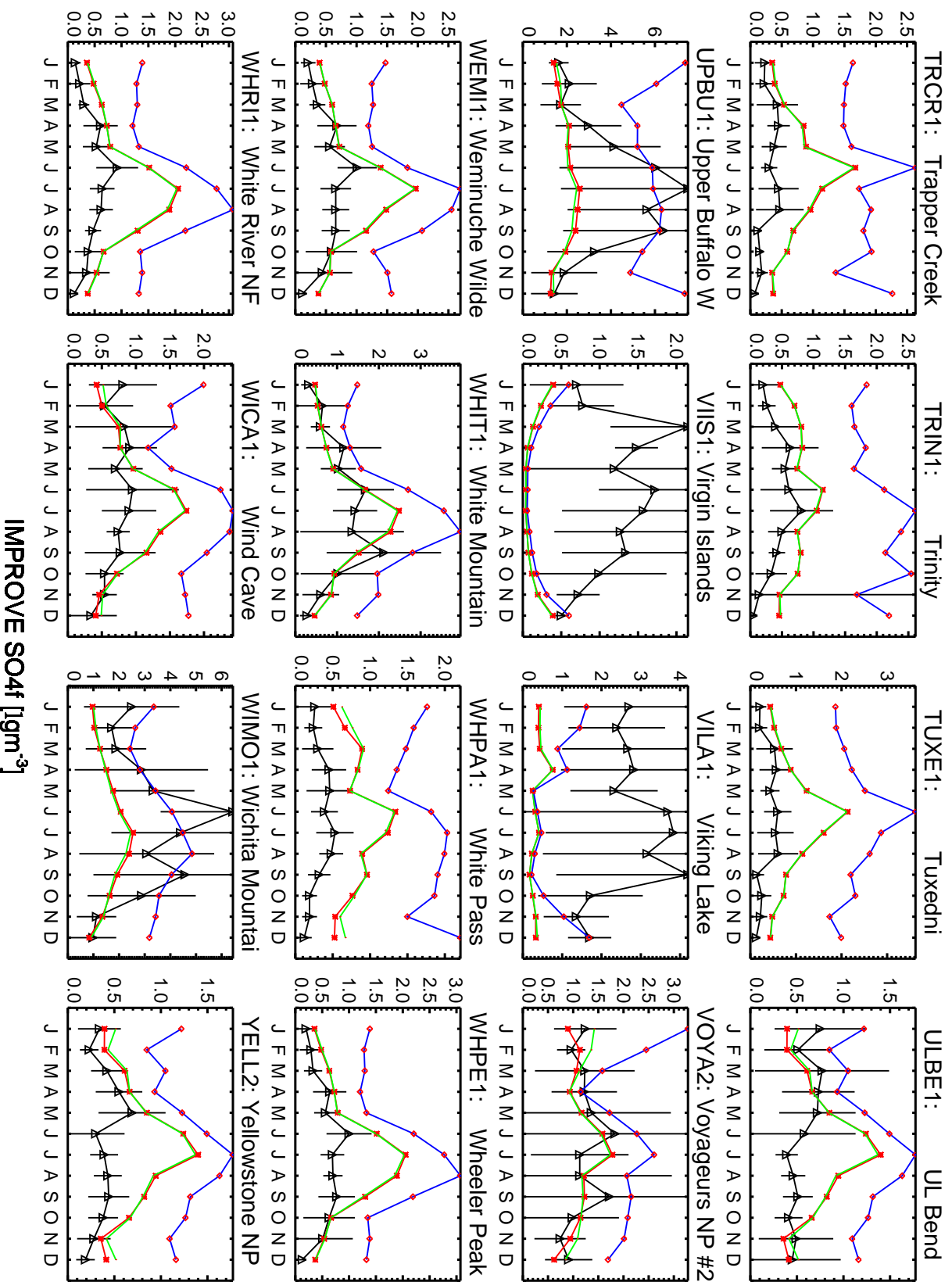
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



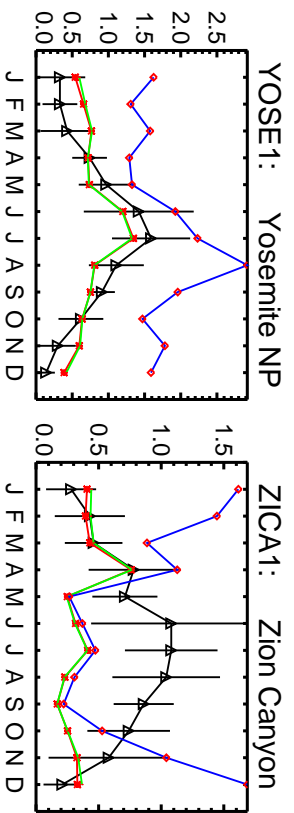
IMPROVE SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]

Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

### GEOS-Chem SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]



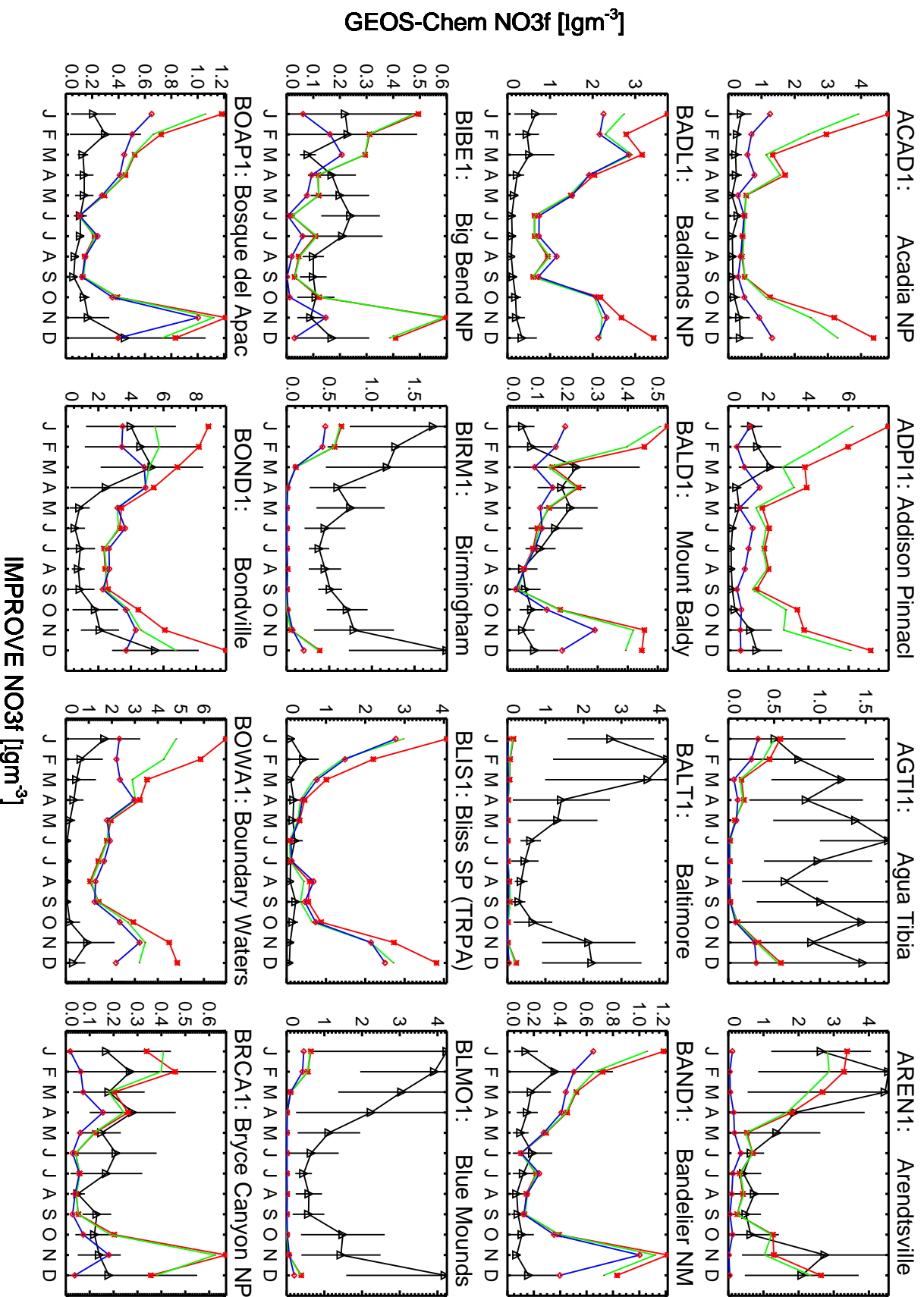
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



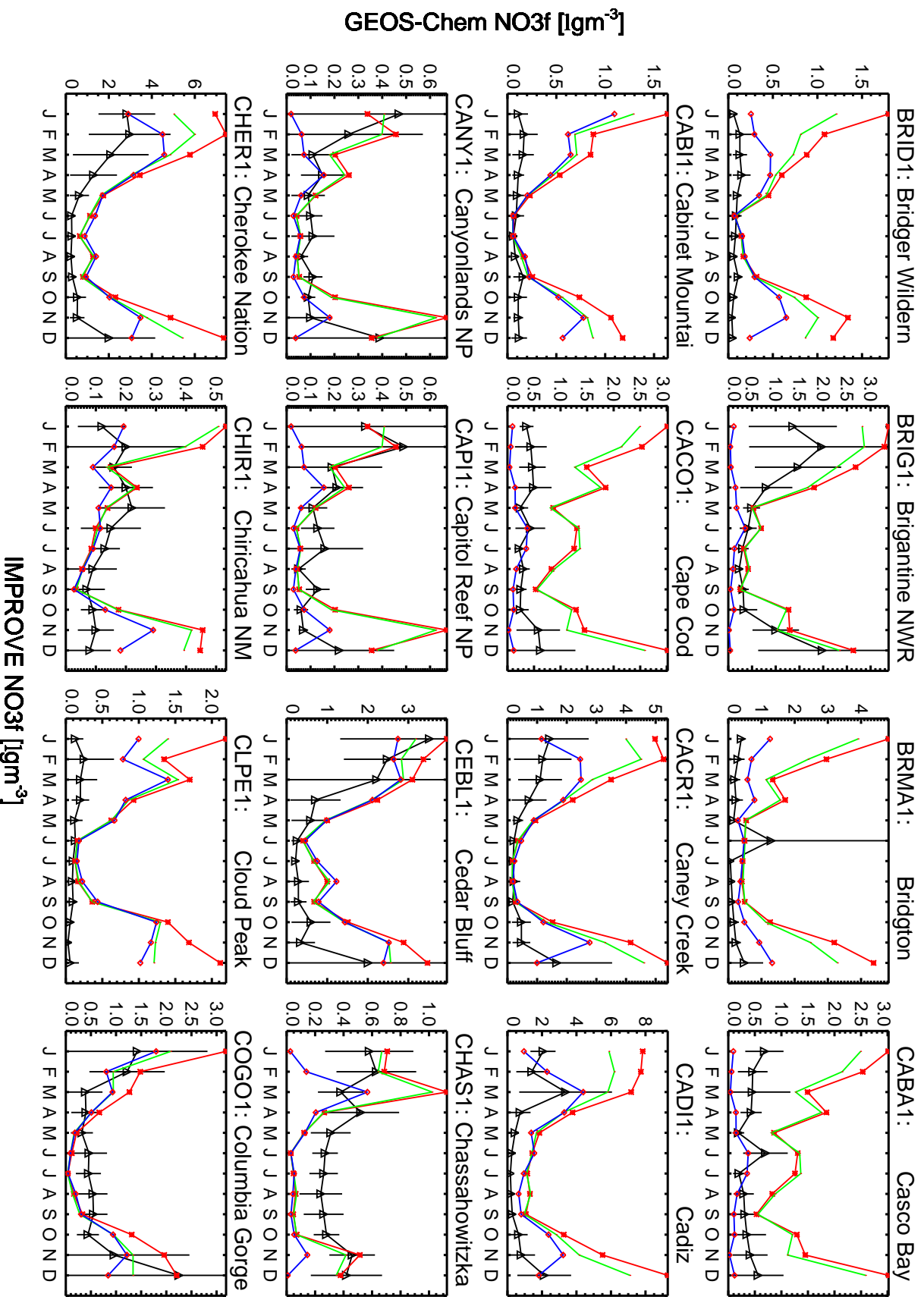
GEOS-Chem SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]

IMPROVE SO<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]

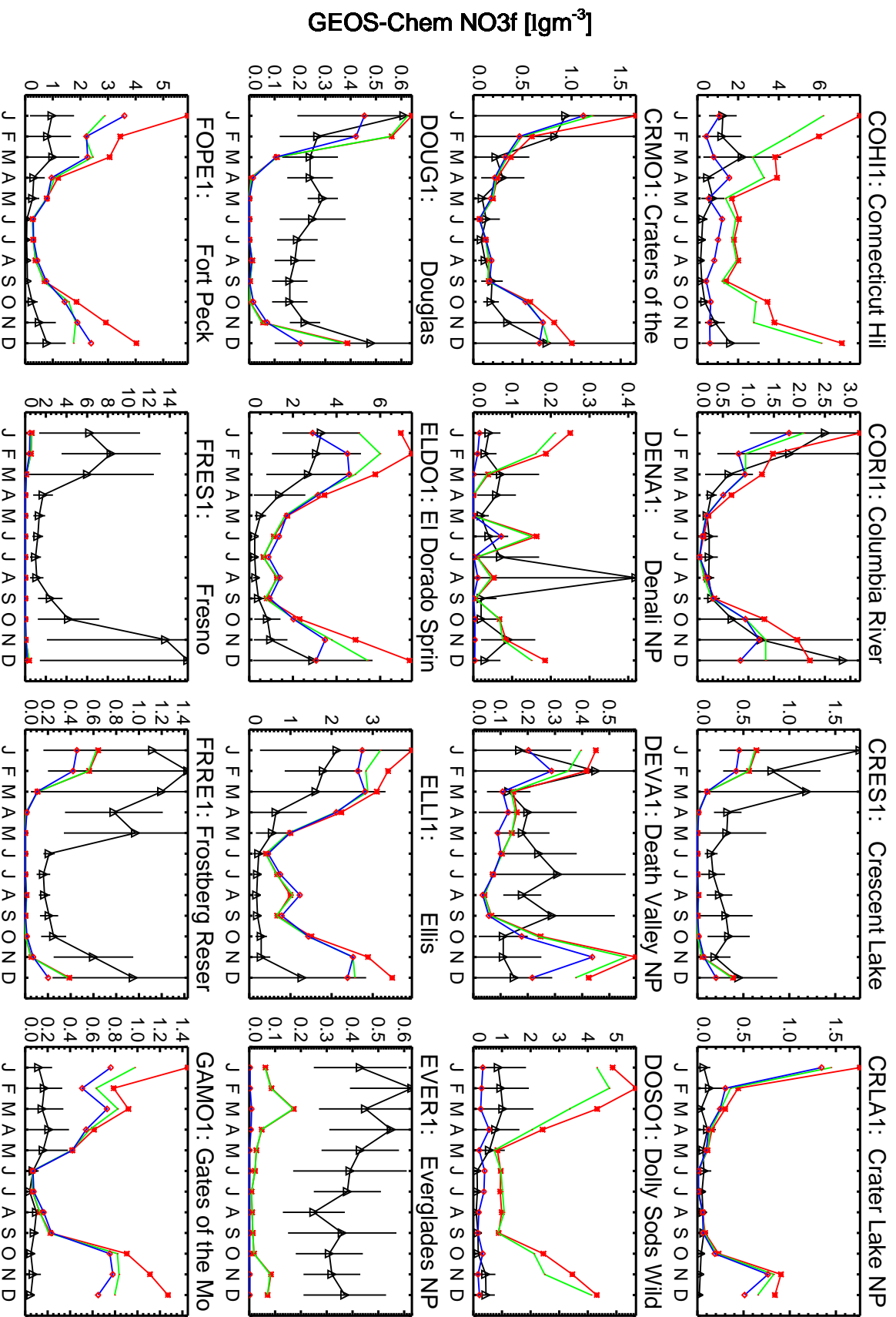
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



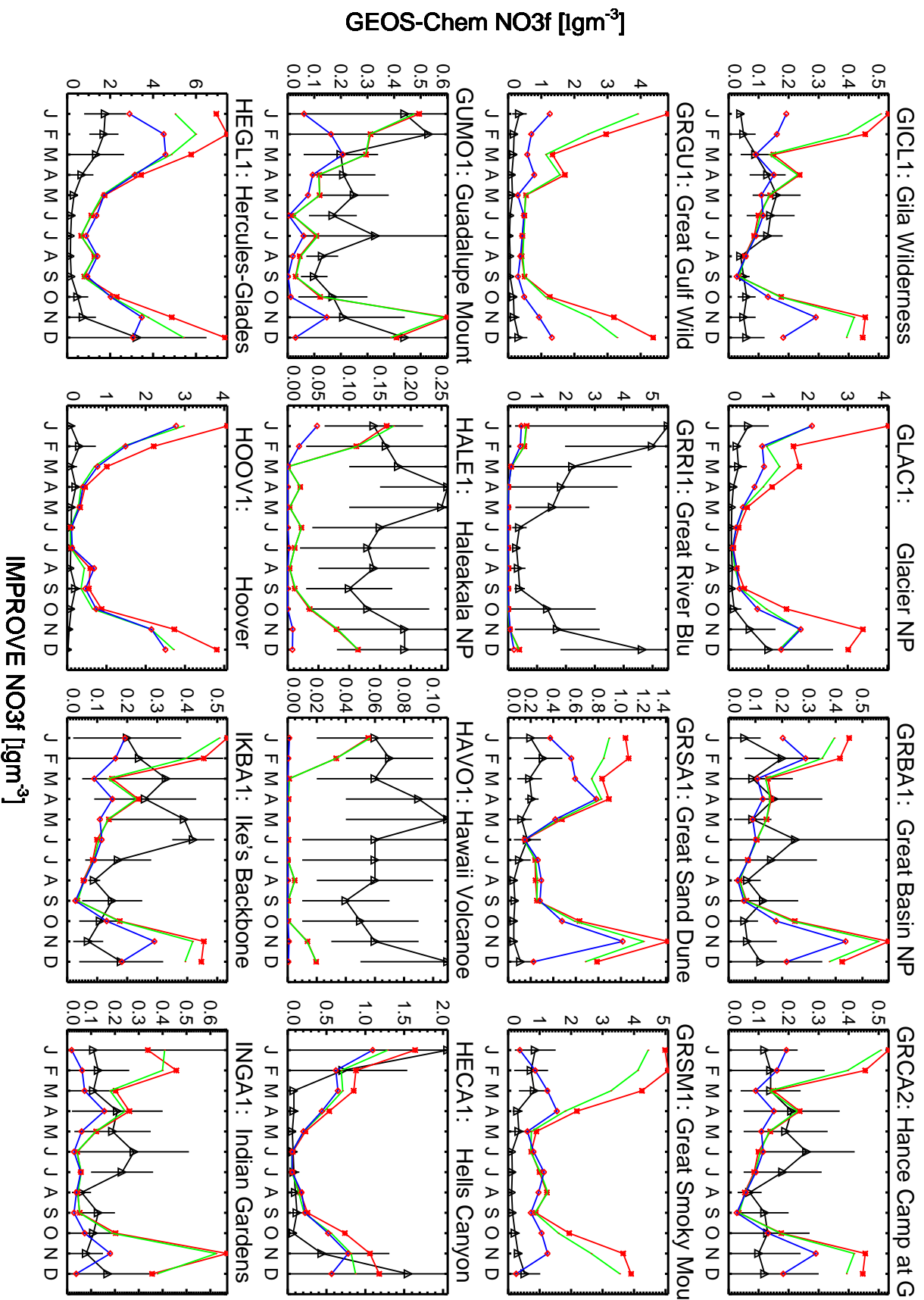
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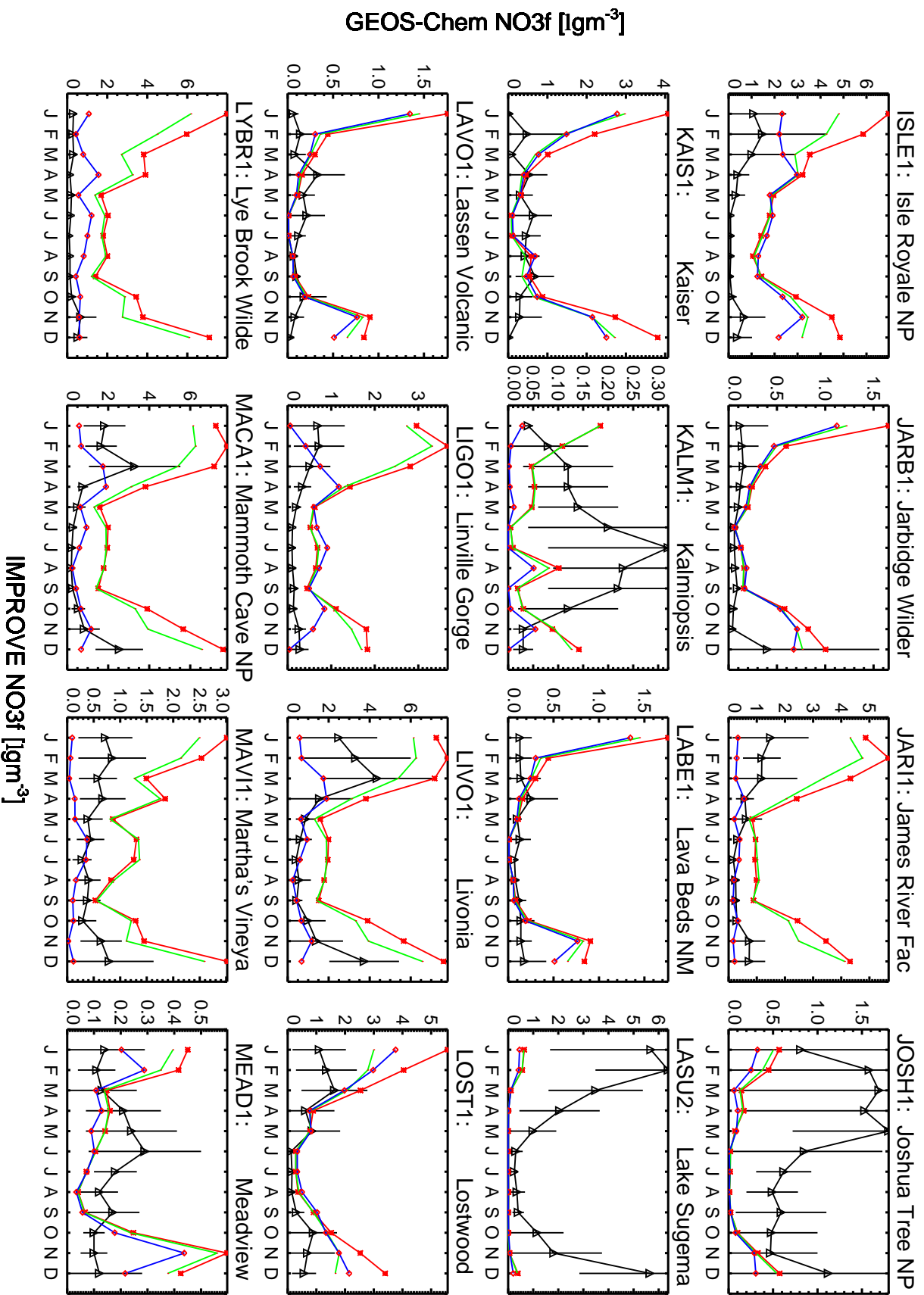
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

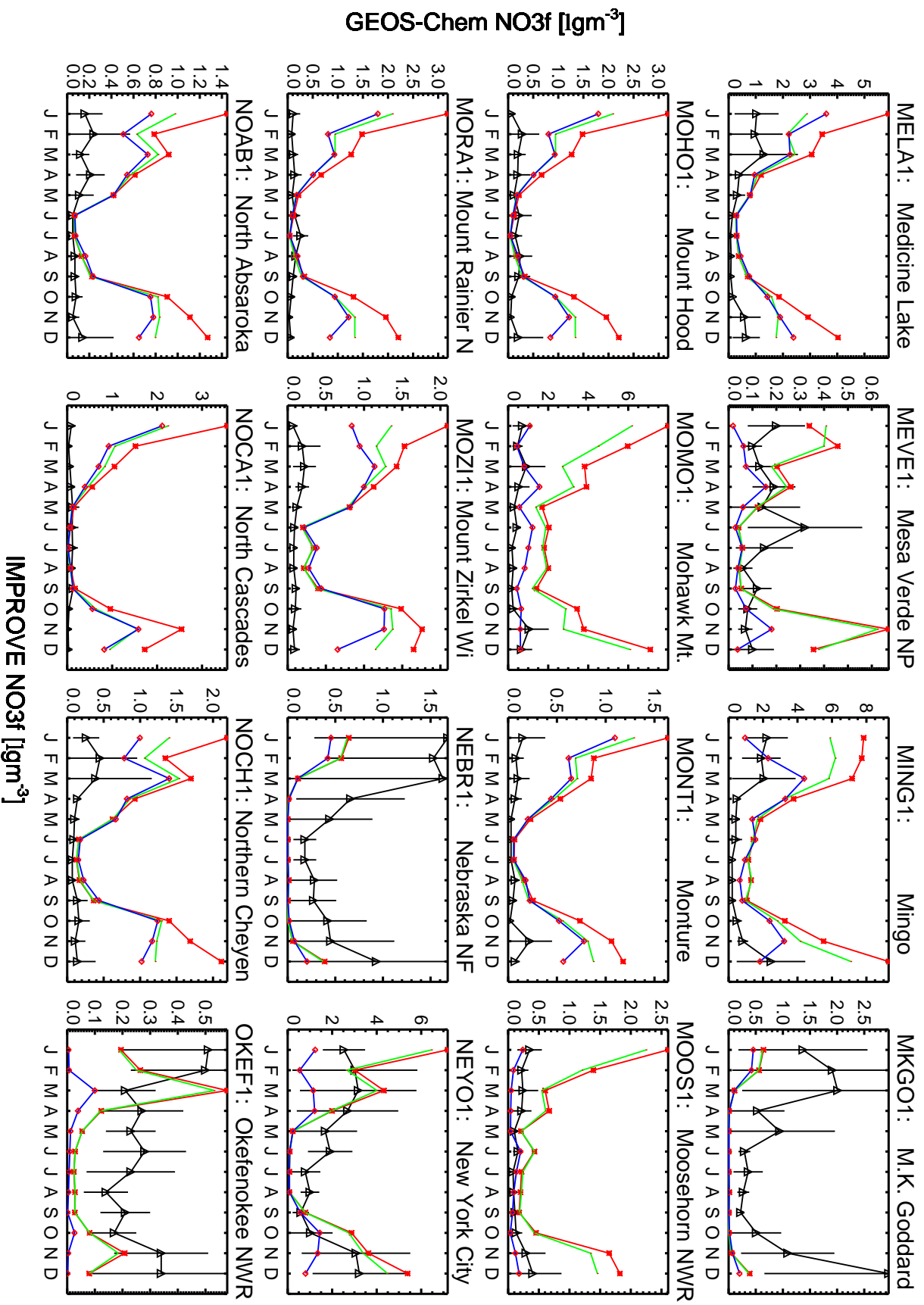


Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

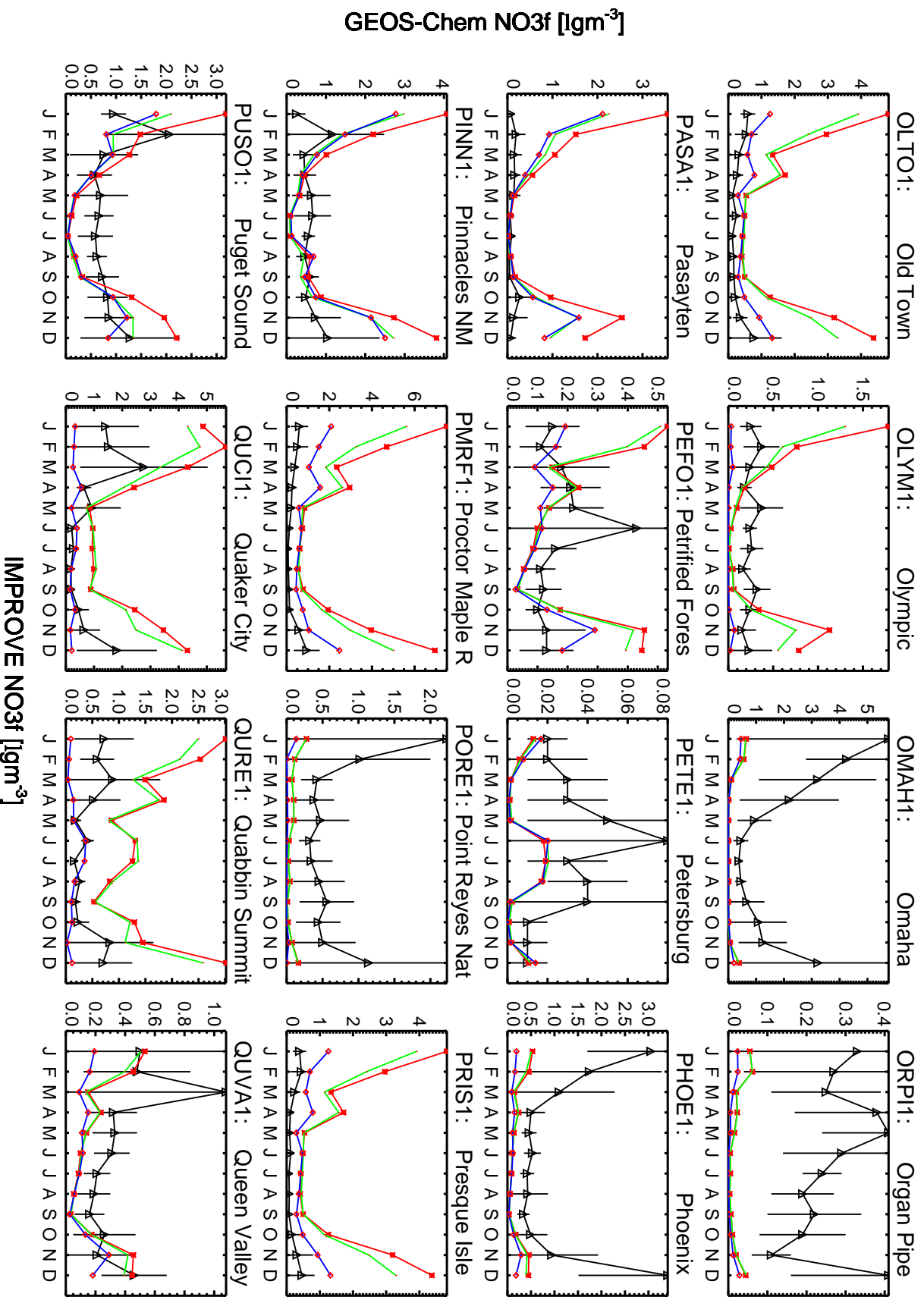




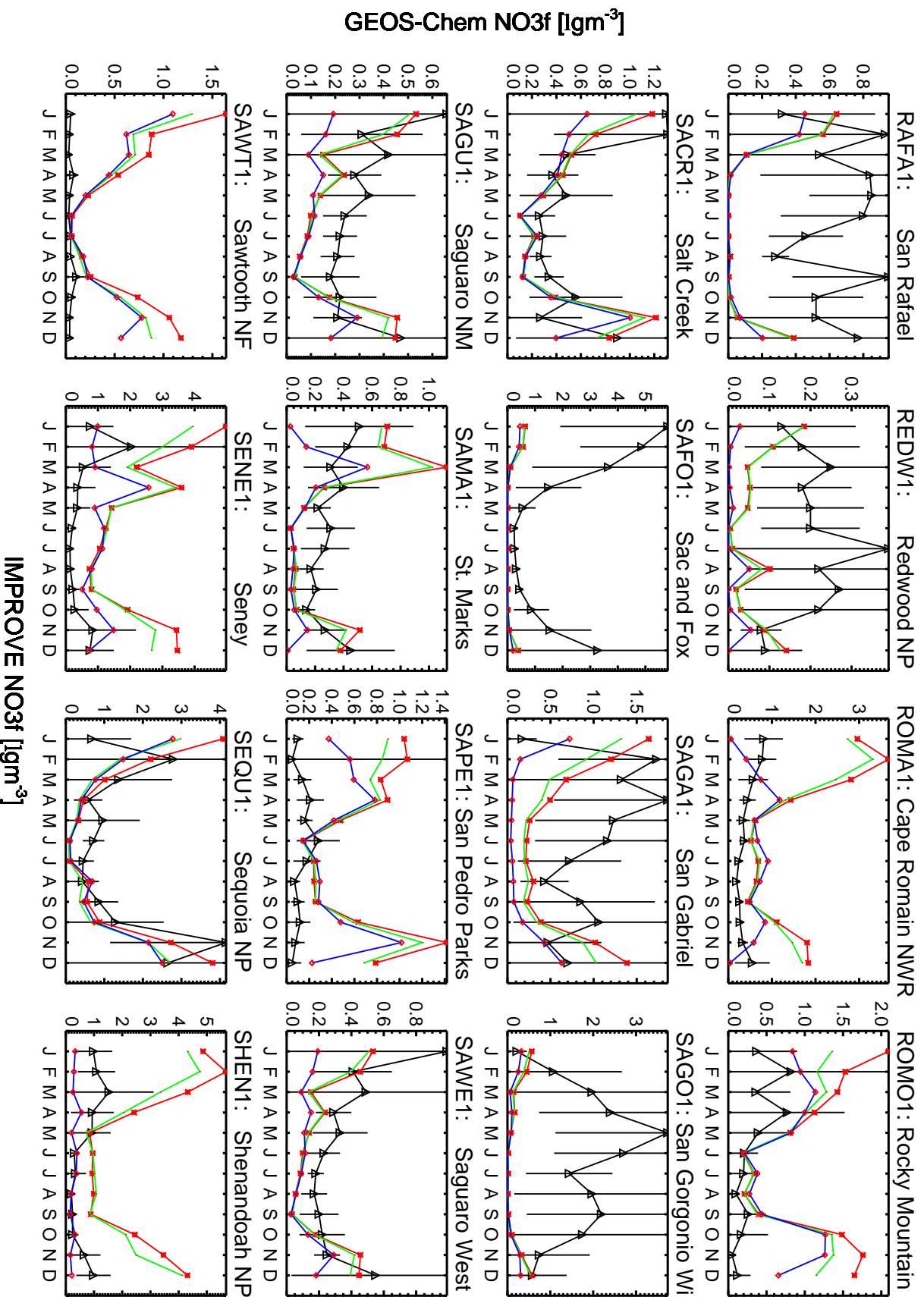
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



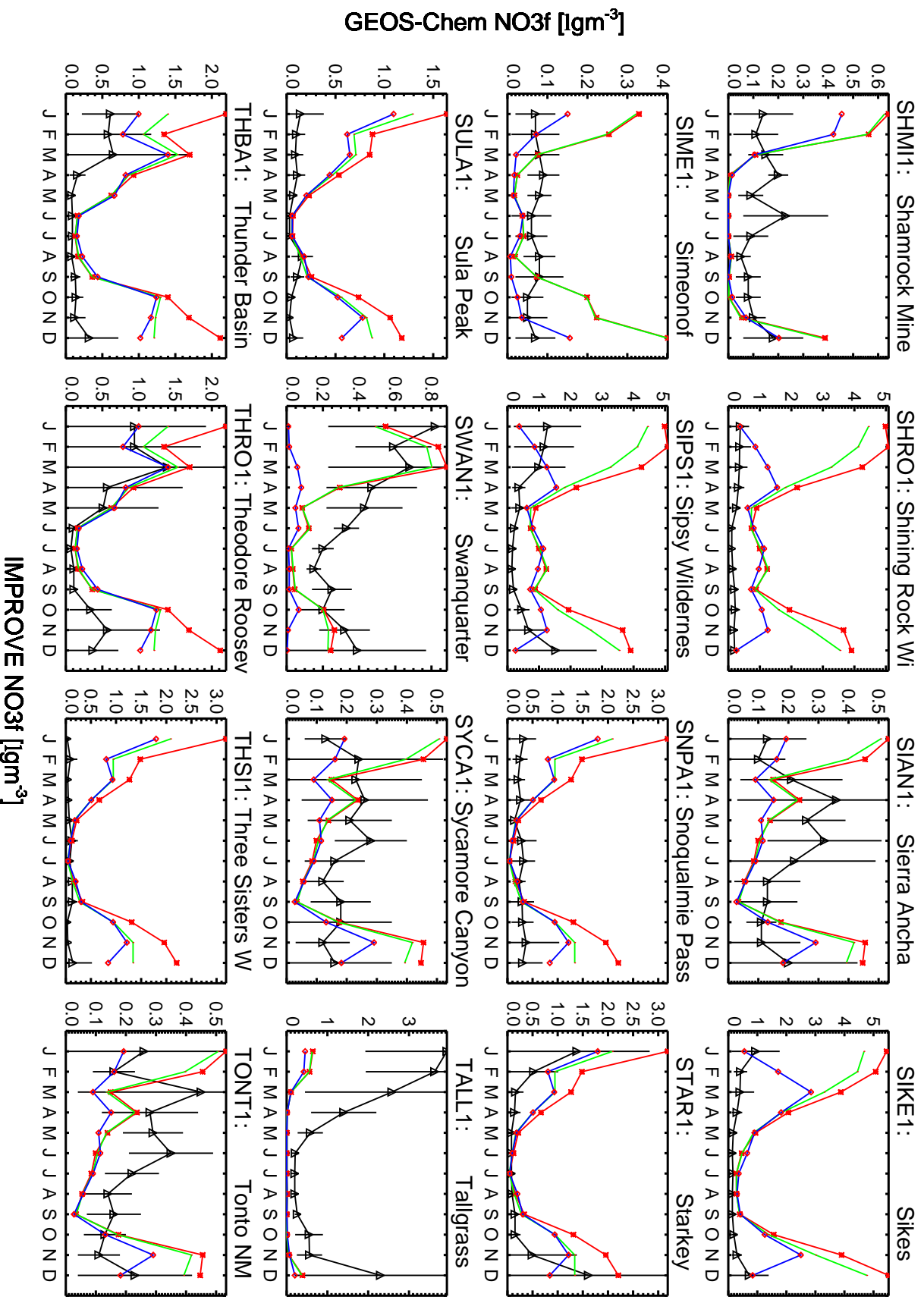
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

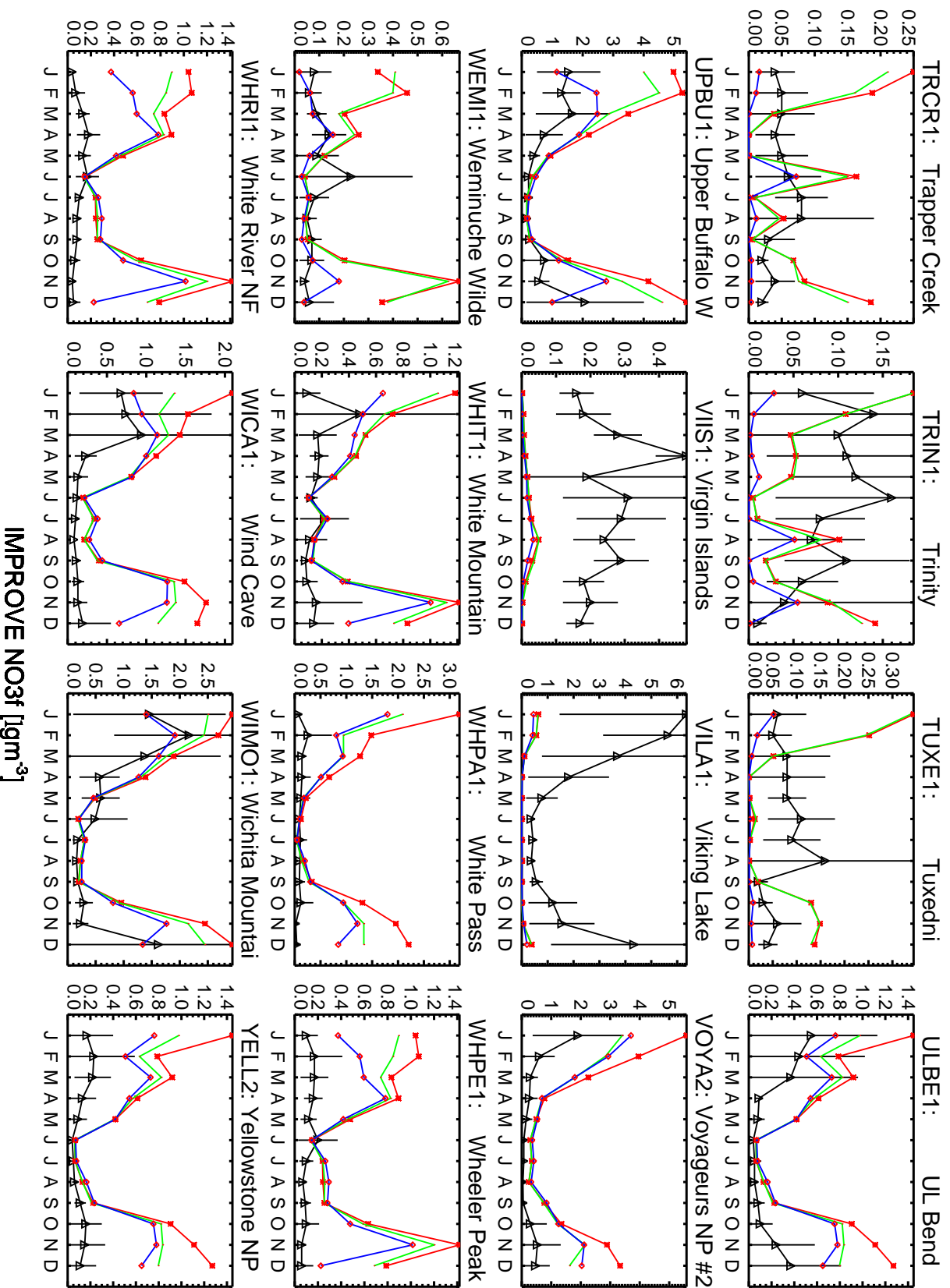


Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



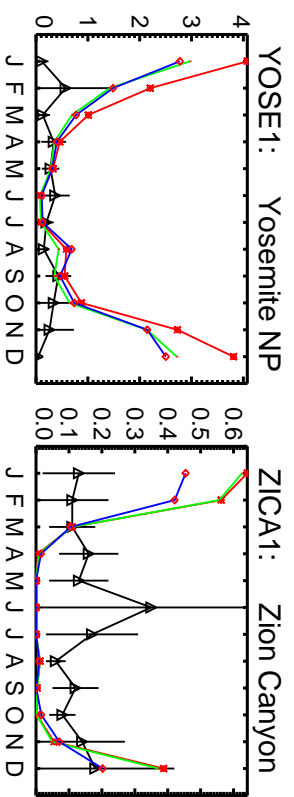
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

GEOS-Chem NO<sub>3</sub>f [ $\mu\text{g m}^{-3}$ ]



IMPROVE NO<sub>3</sub>f [ $\mu\text{g m}^{-3}$ ]

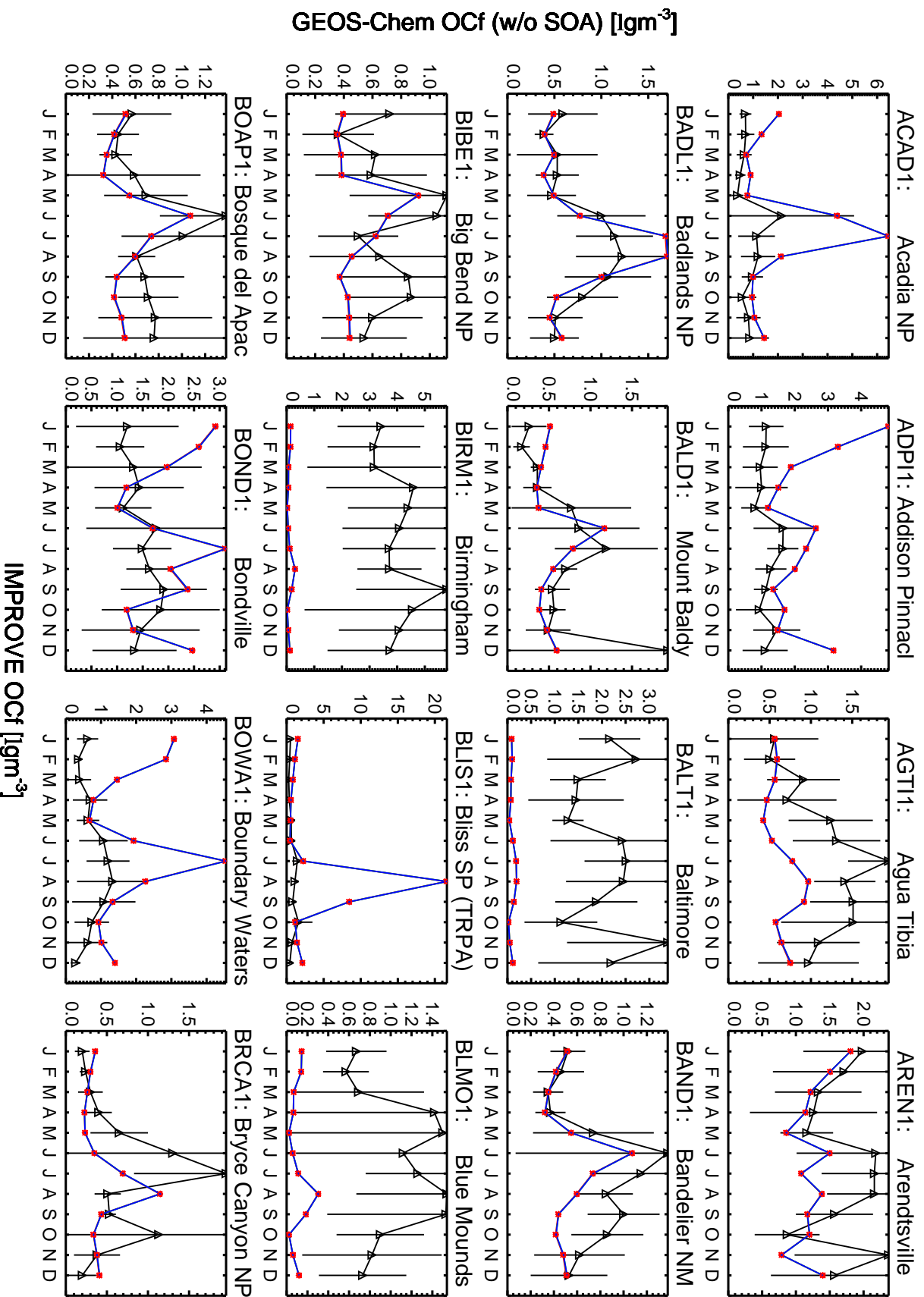
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



GEOS-Chem NO3f [ $\mu\text{g m}^{-3}$ ]

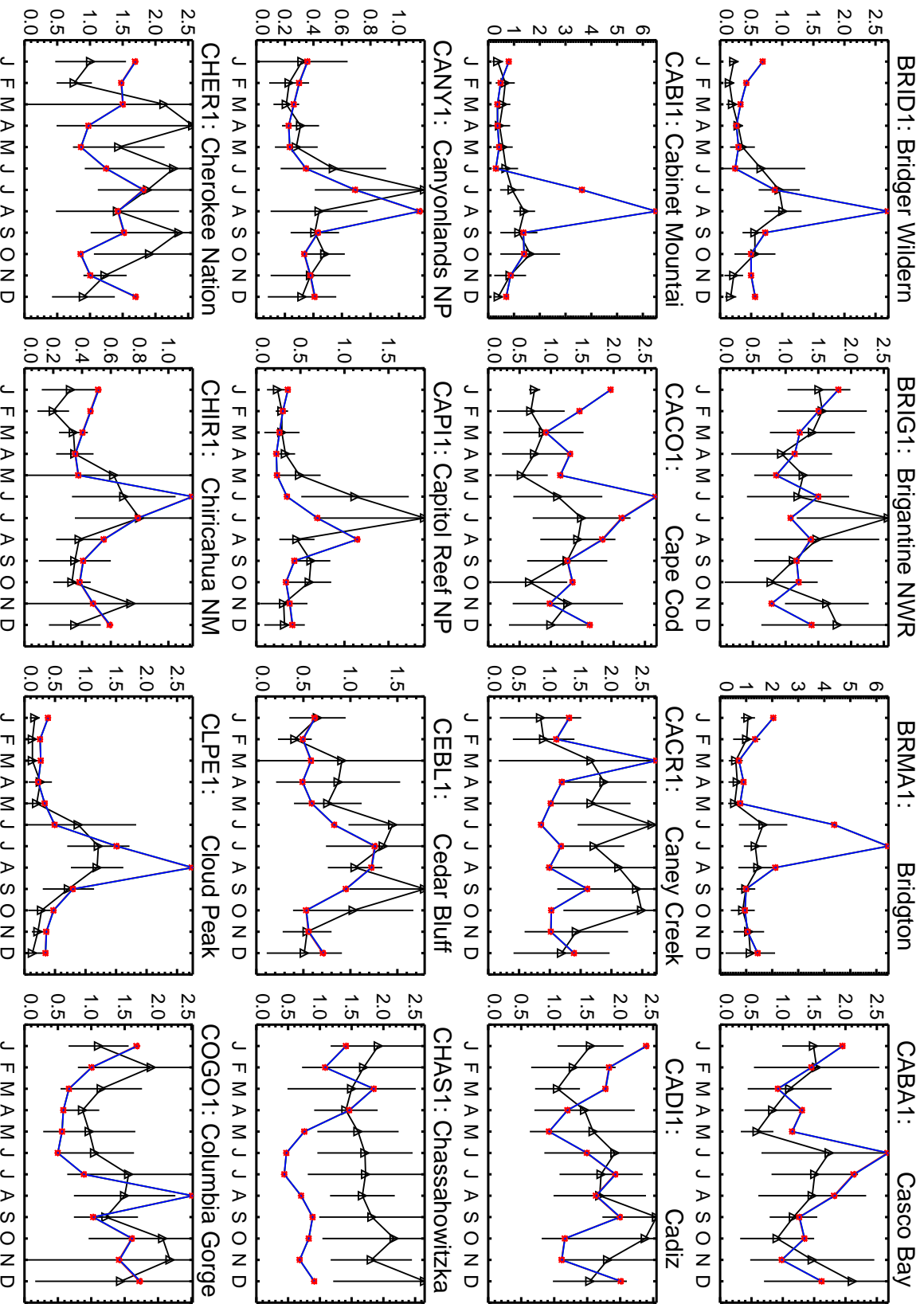
IMPROVE NO3f [ $\mu\text{g m}^{-3}$ ]

Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

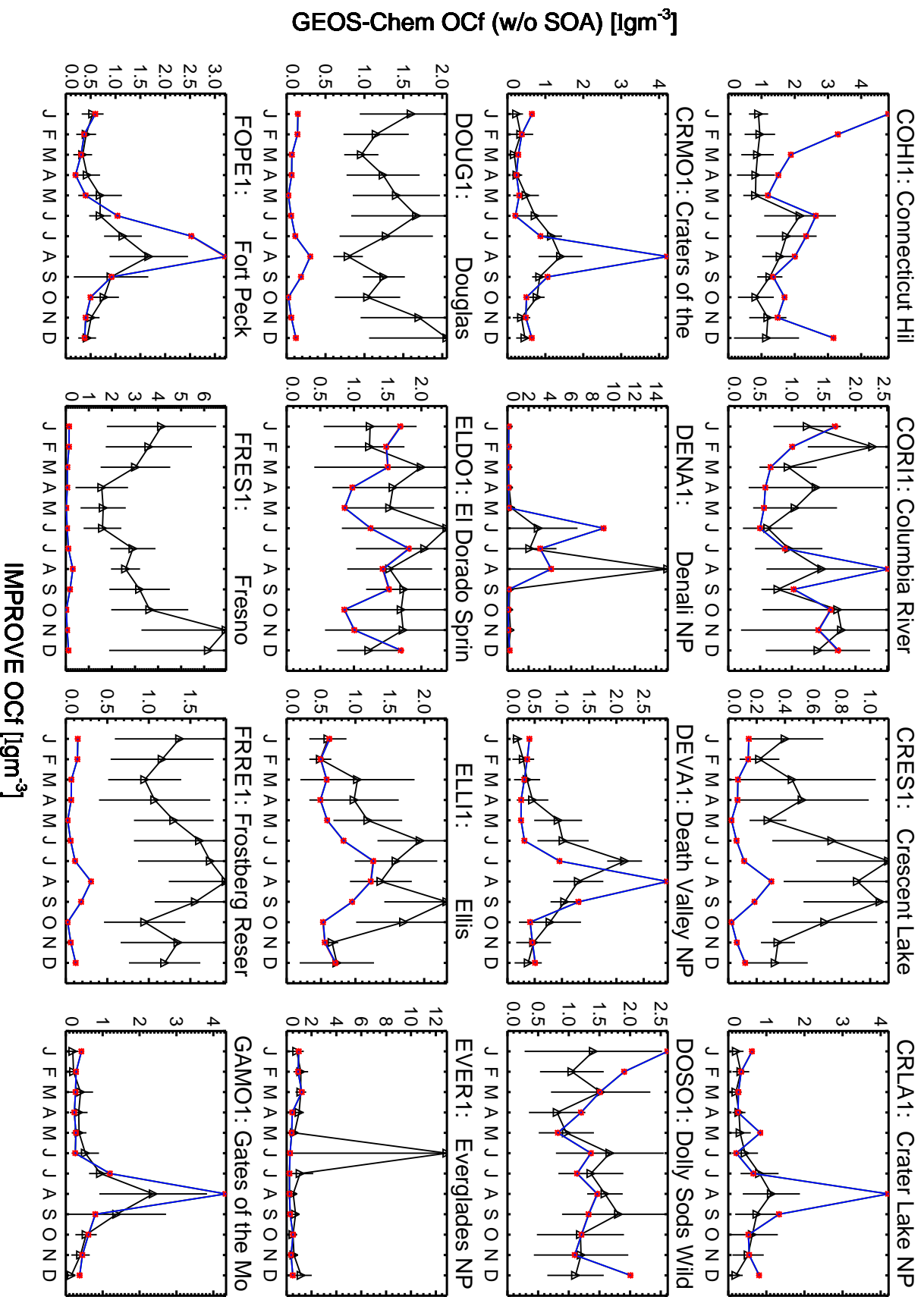
GEOS-Chem OCf (w/o SOA) [ $\mu\text{g m}^{-3}$ ]



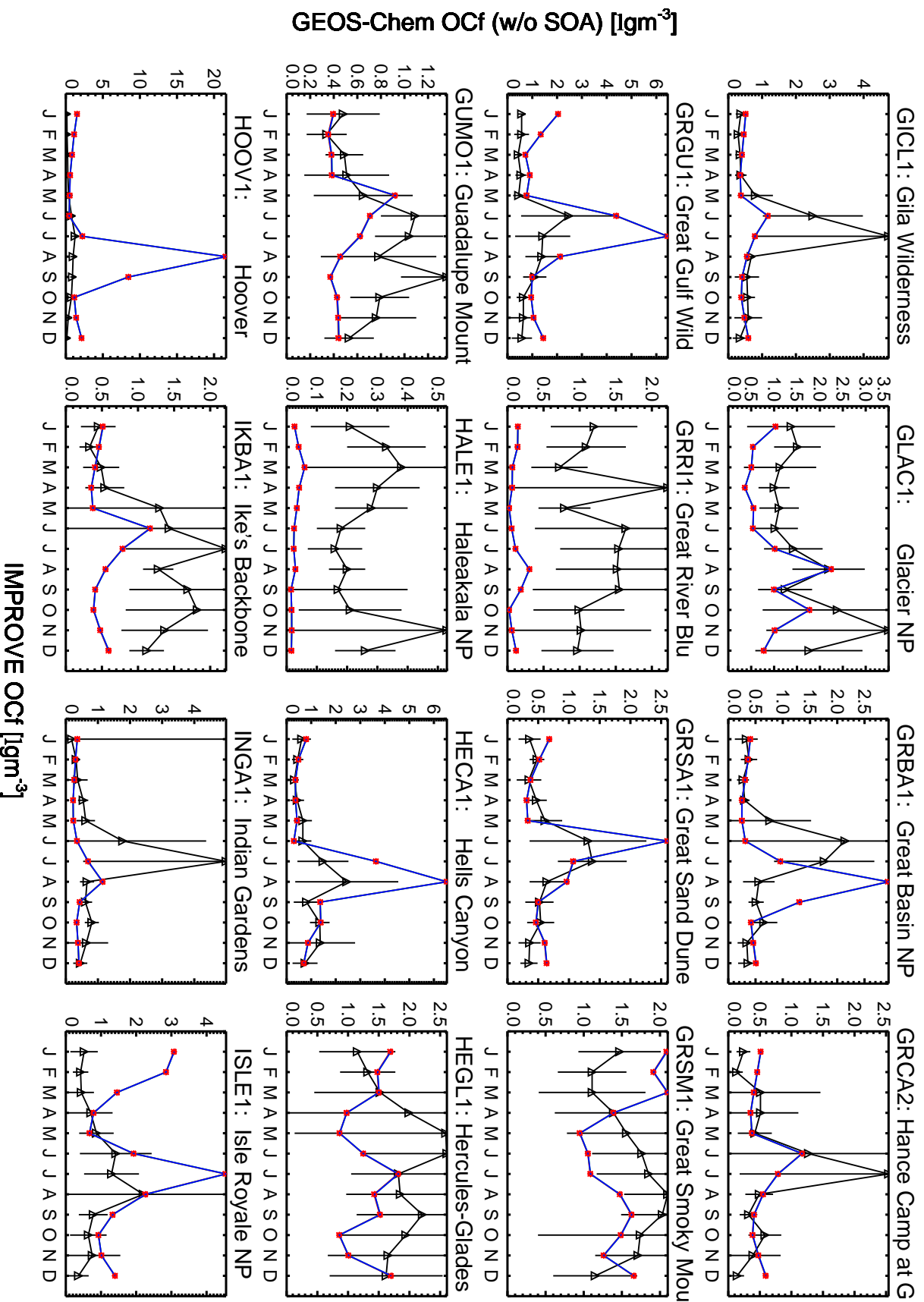
IMPROVE OCf [ $\mu\text{g m}^{-3}$ ]



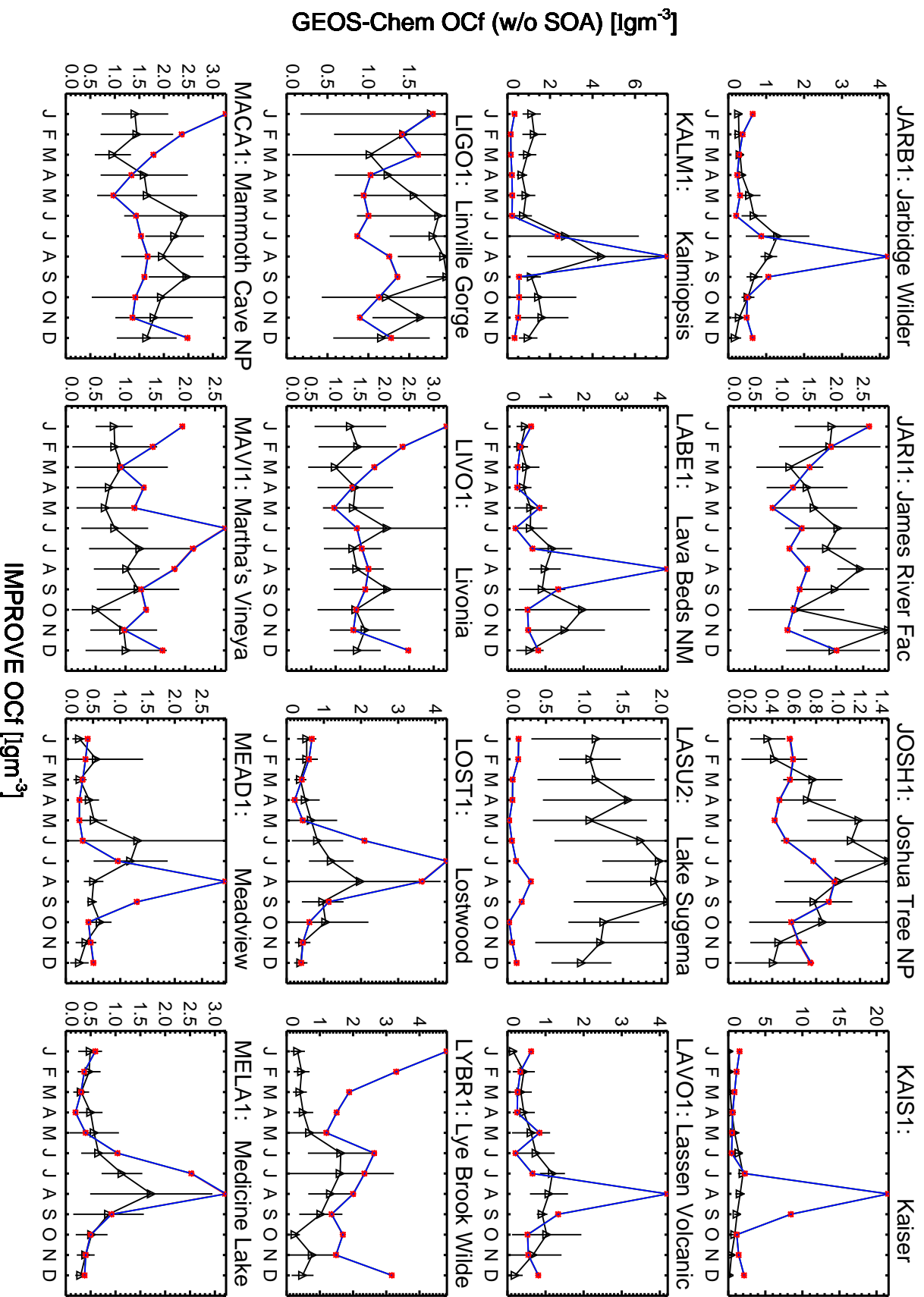
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



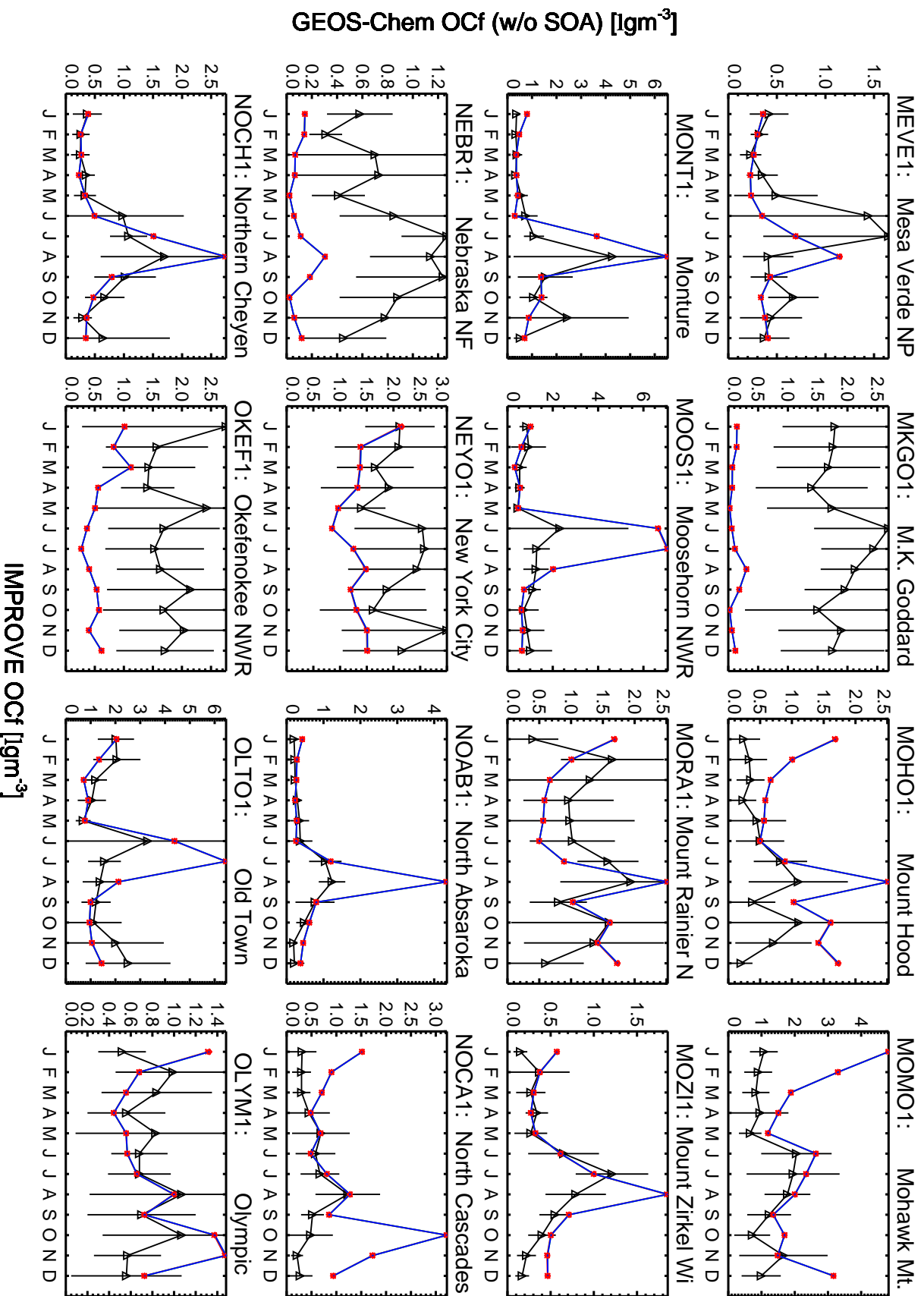
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



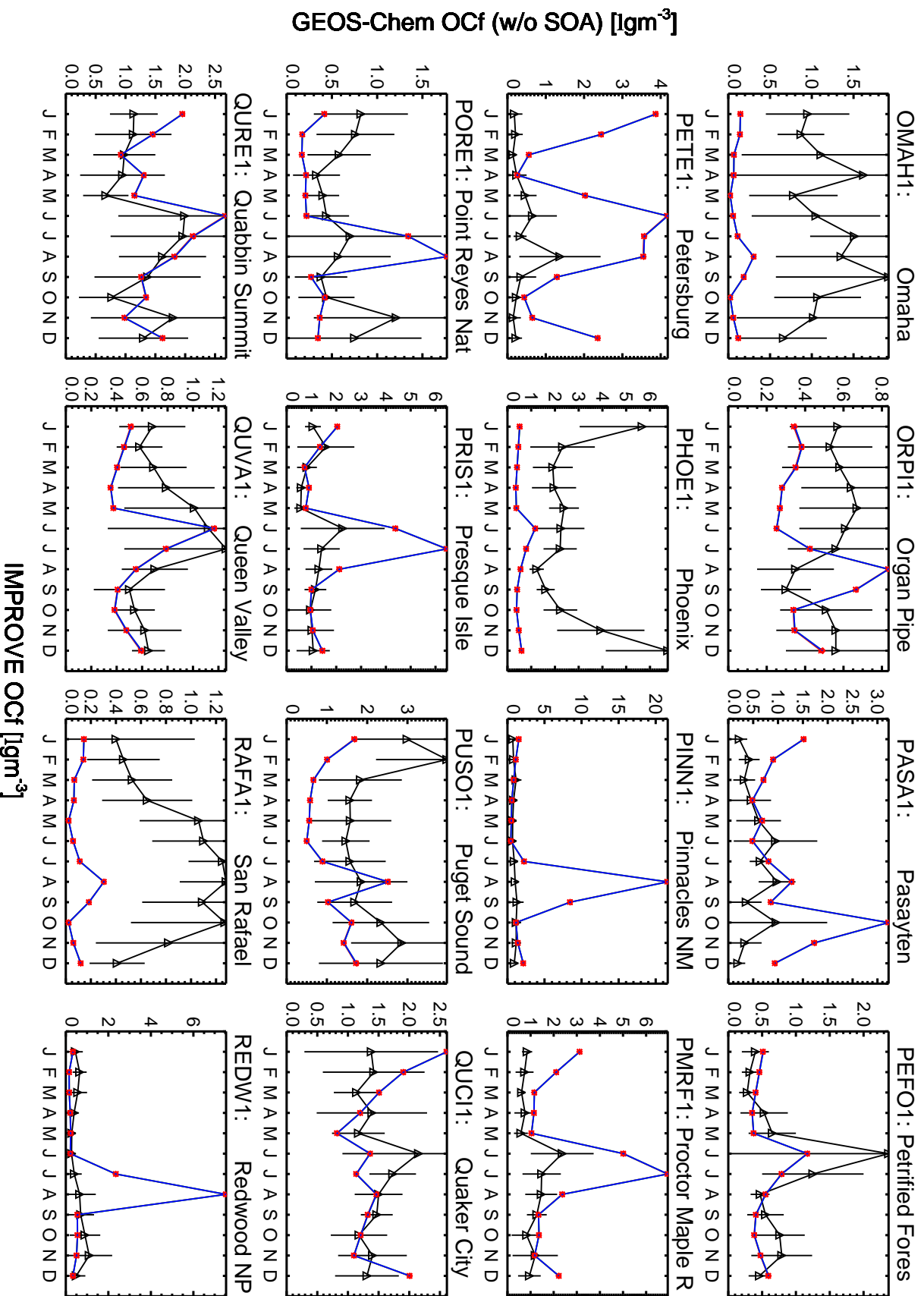
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

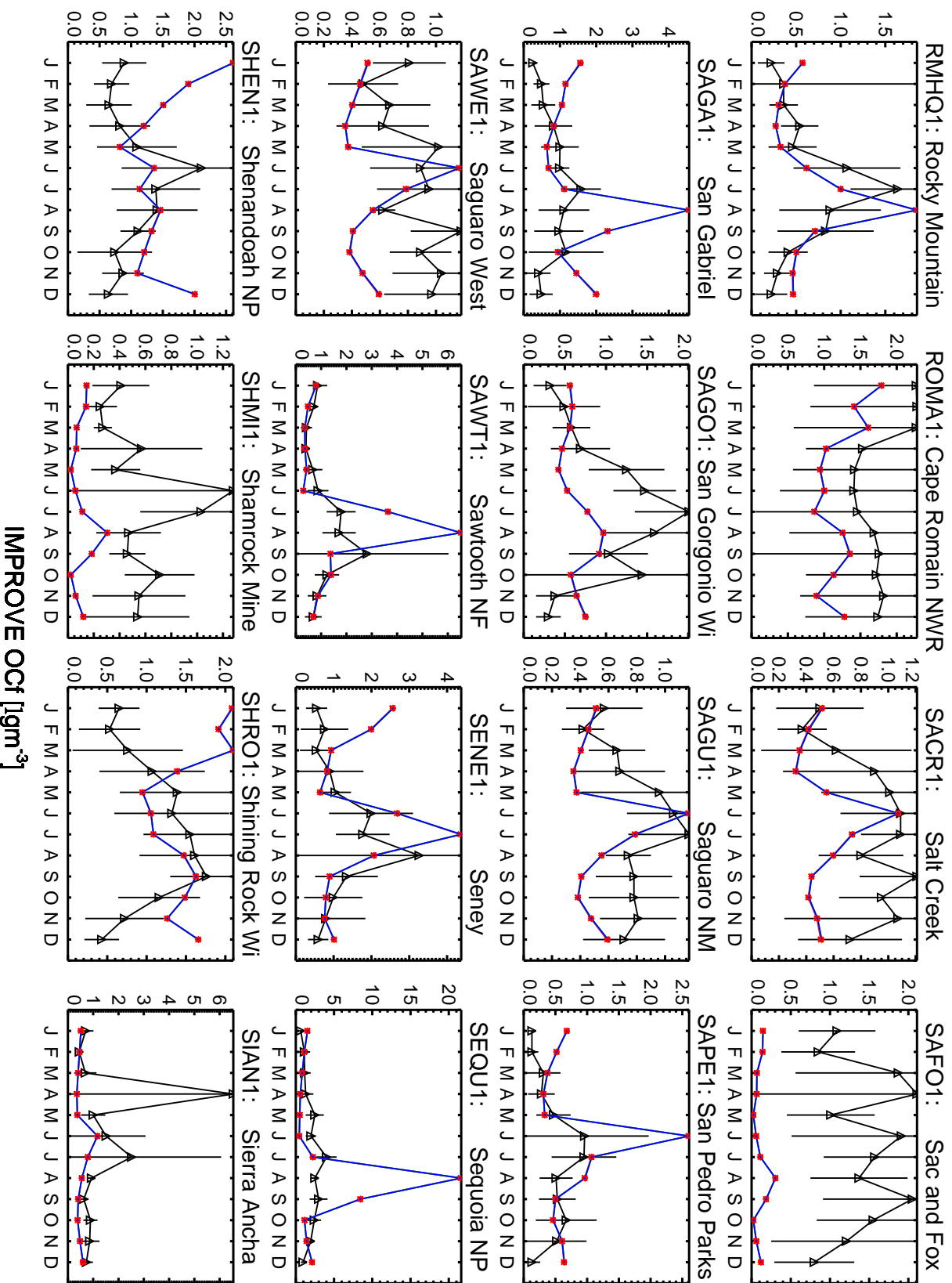


Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



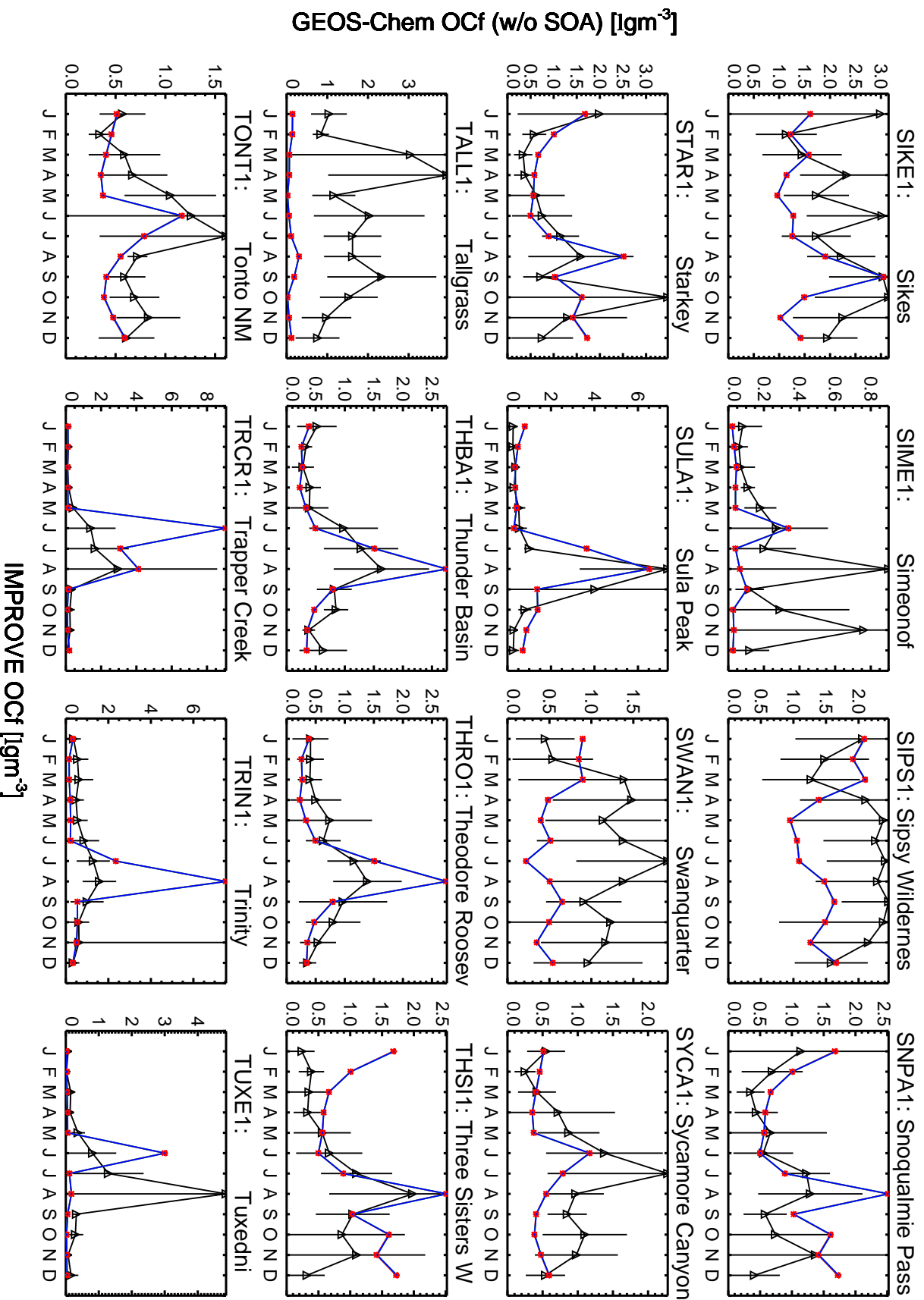
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

GEOS-Chem OCf (w/o SOA) [ $\mu\text{g m}^{-3}$ ]

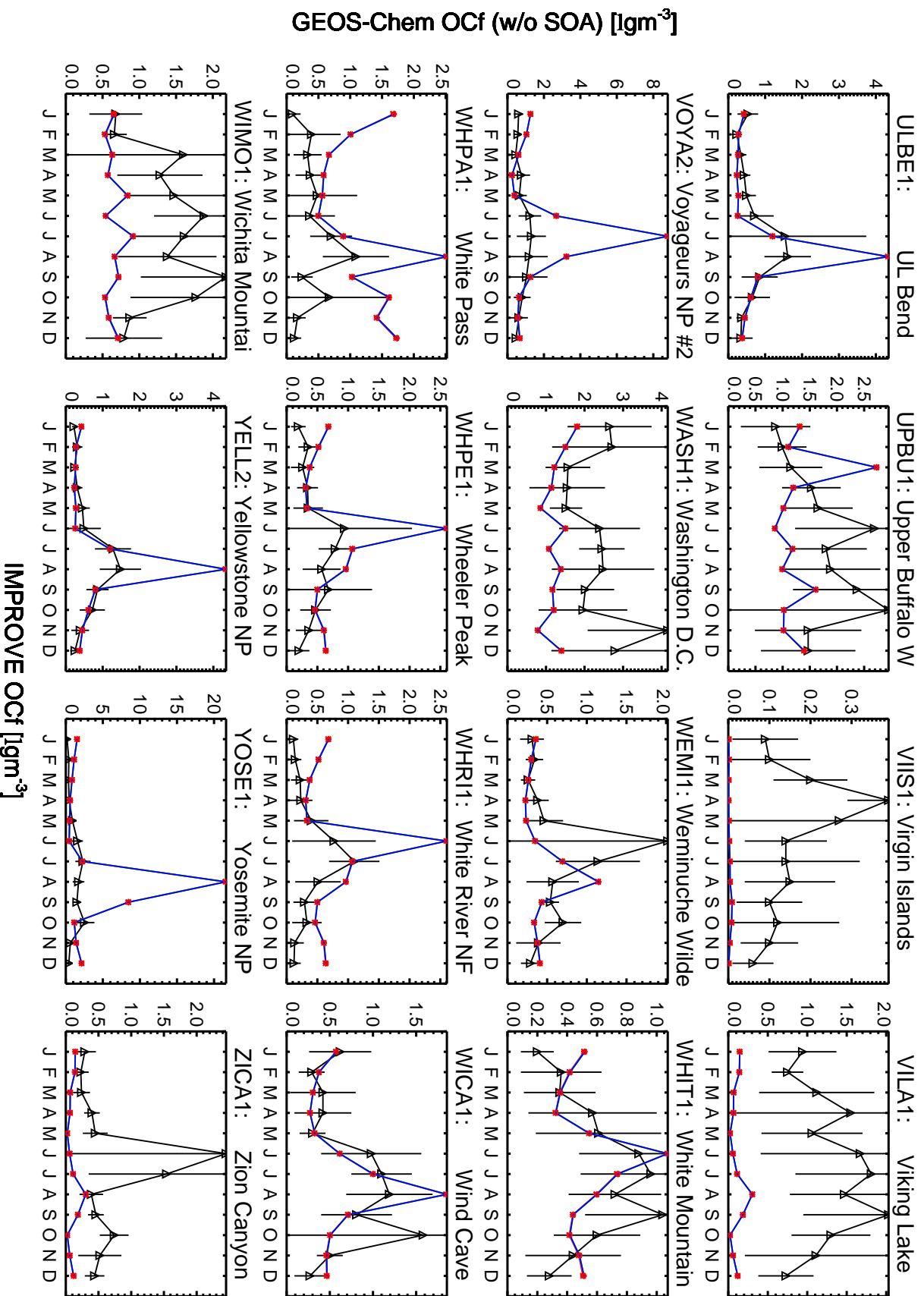


IMPROVE OCf [ $\mu\text{g m}^{-3}$ ]

Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

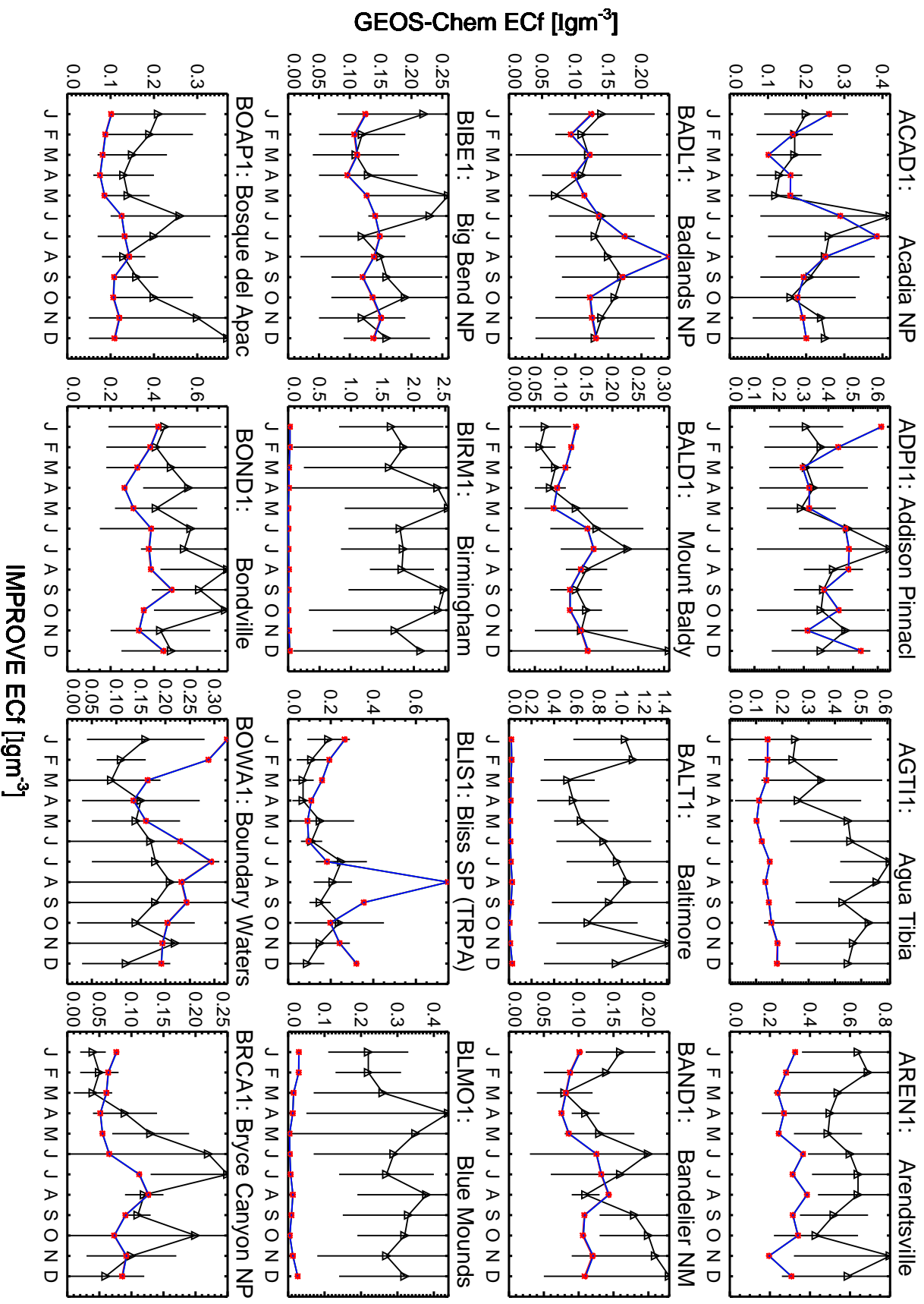


Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

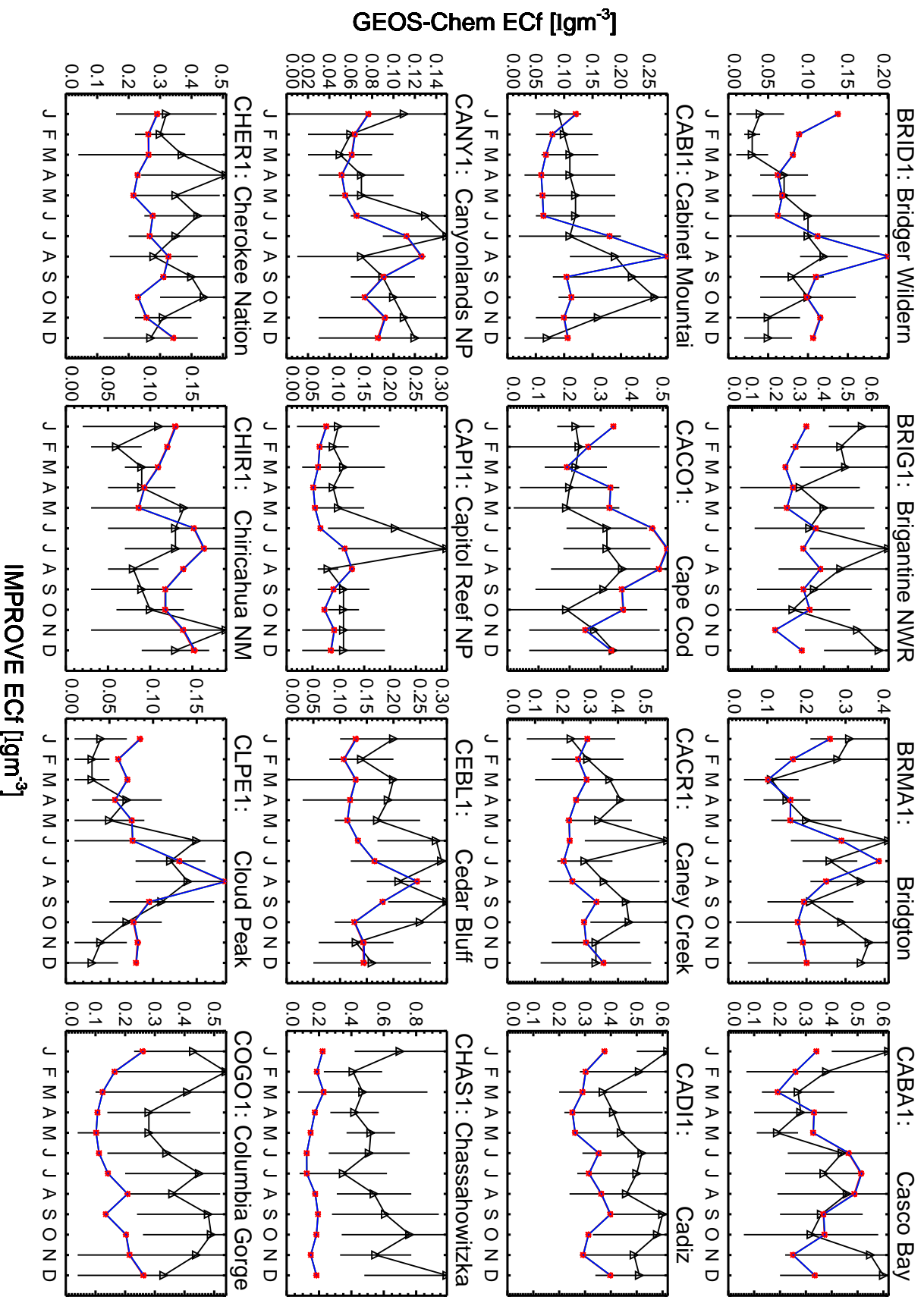




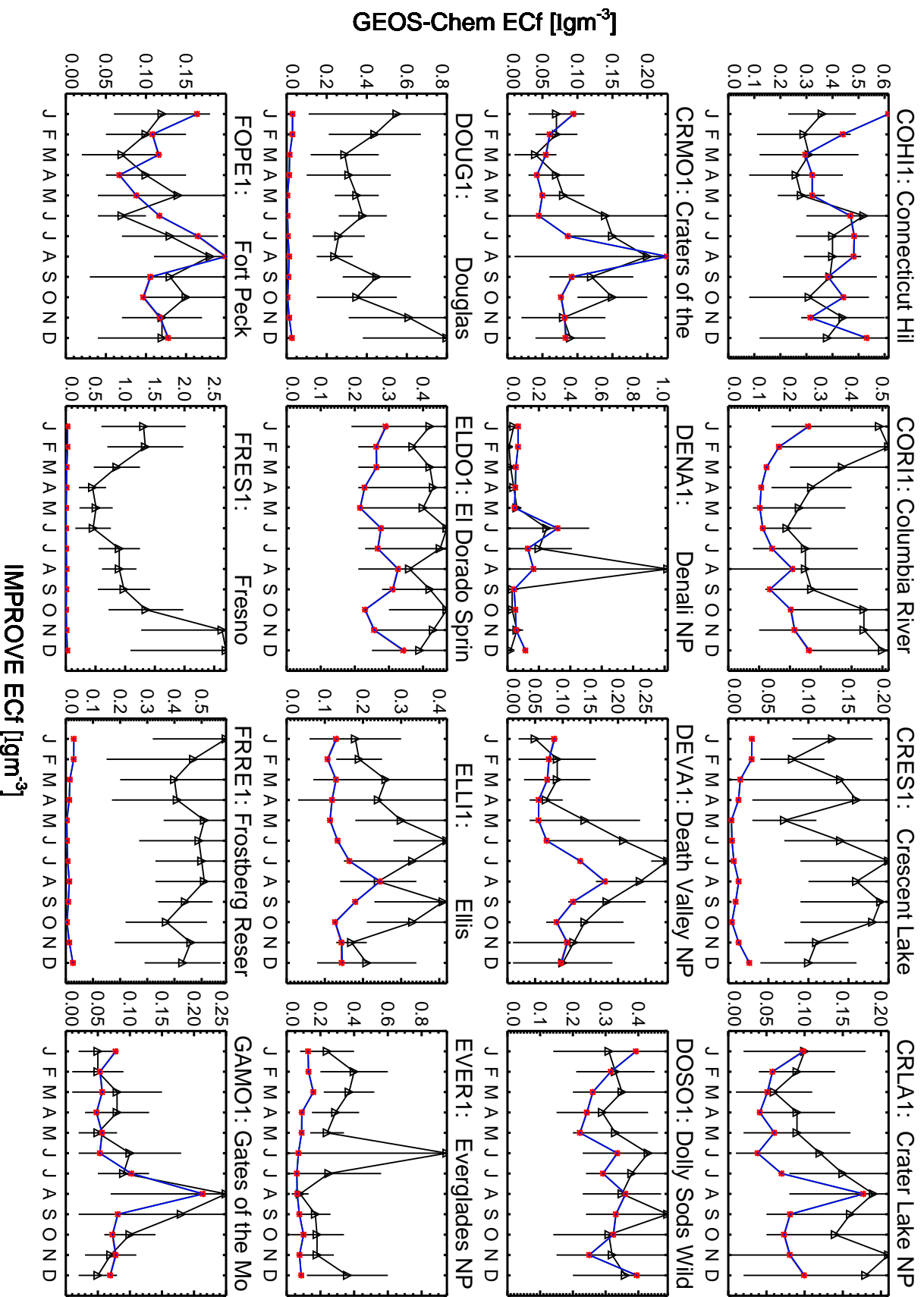
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



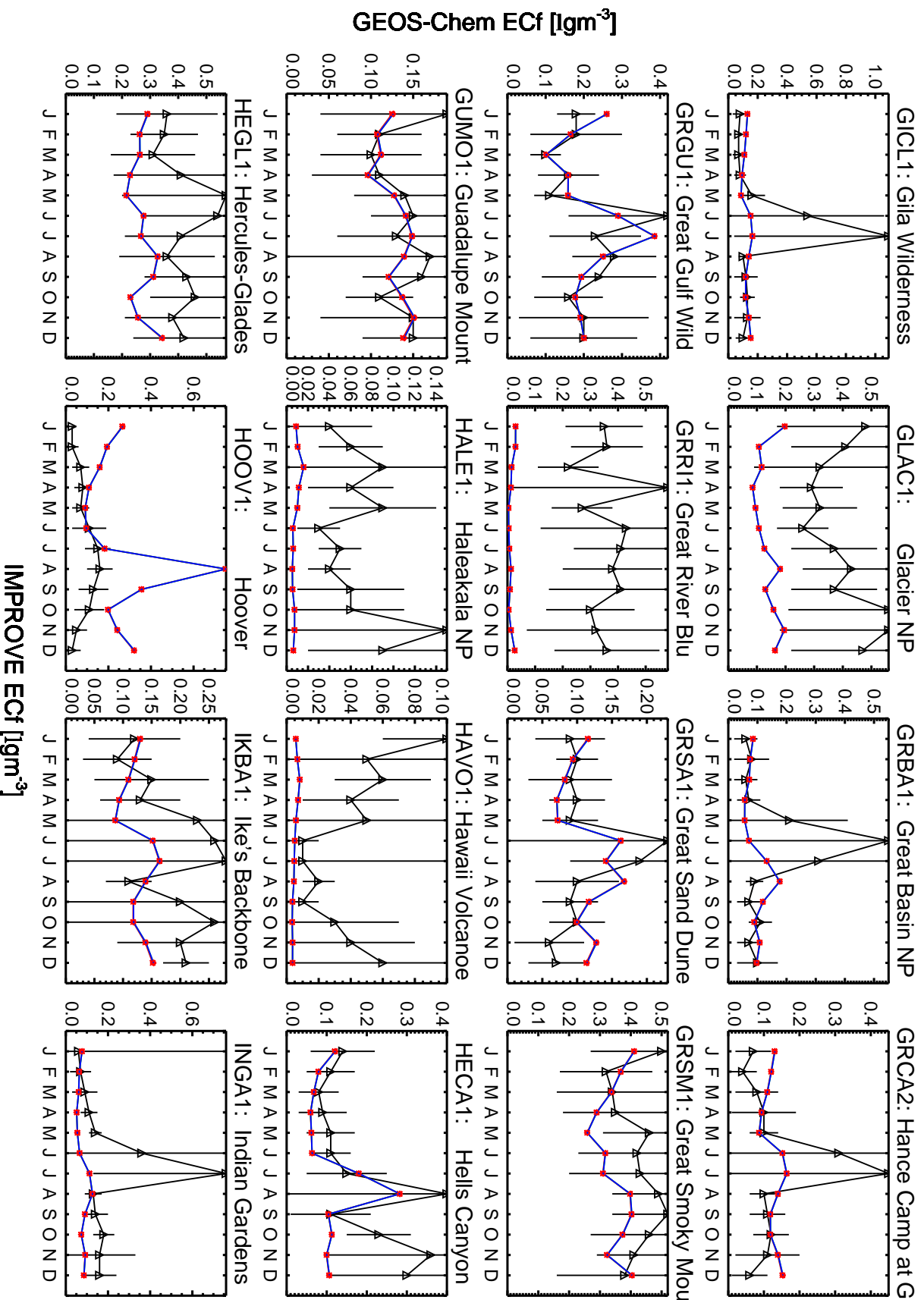
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



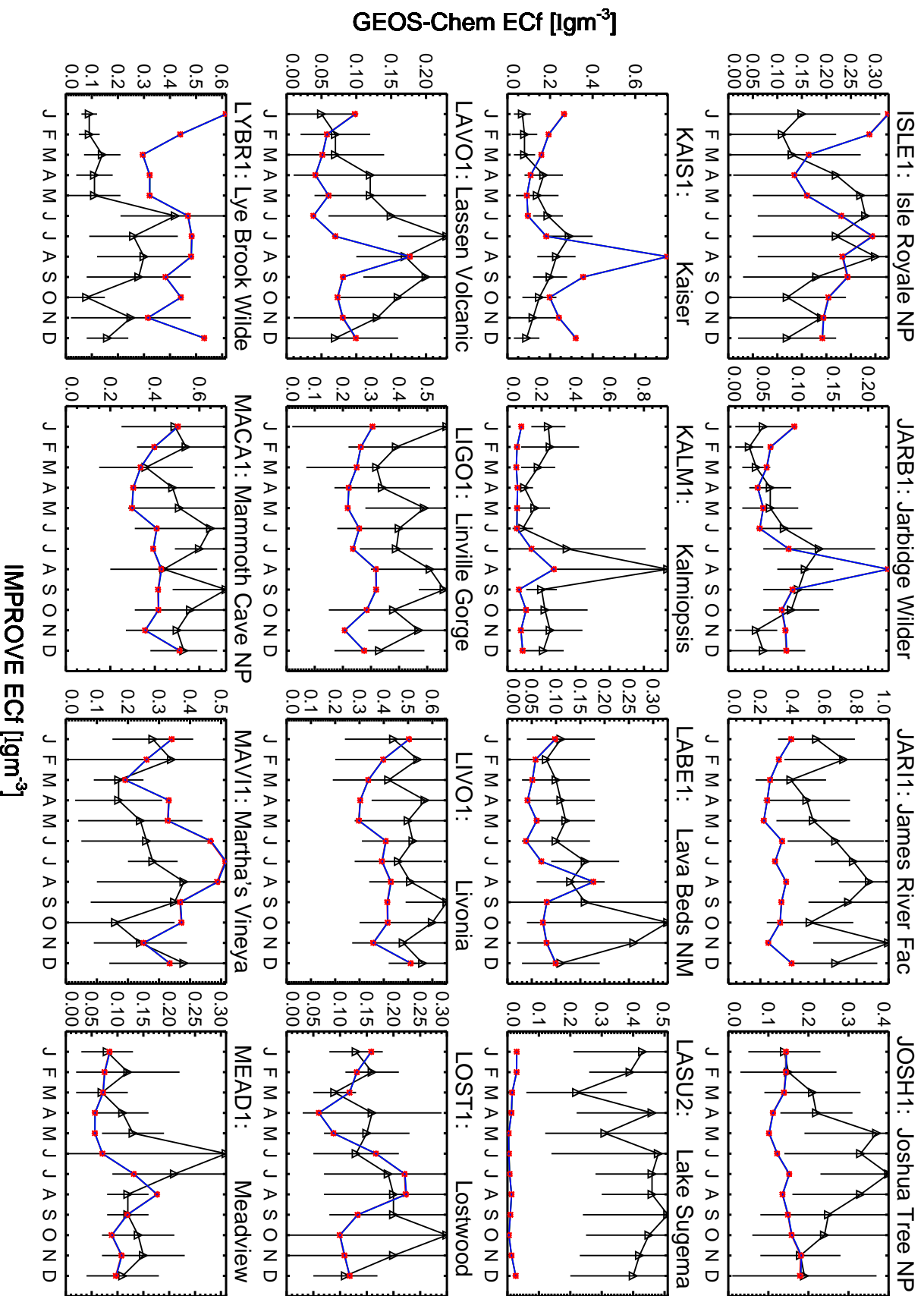
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



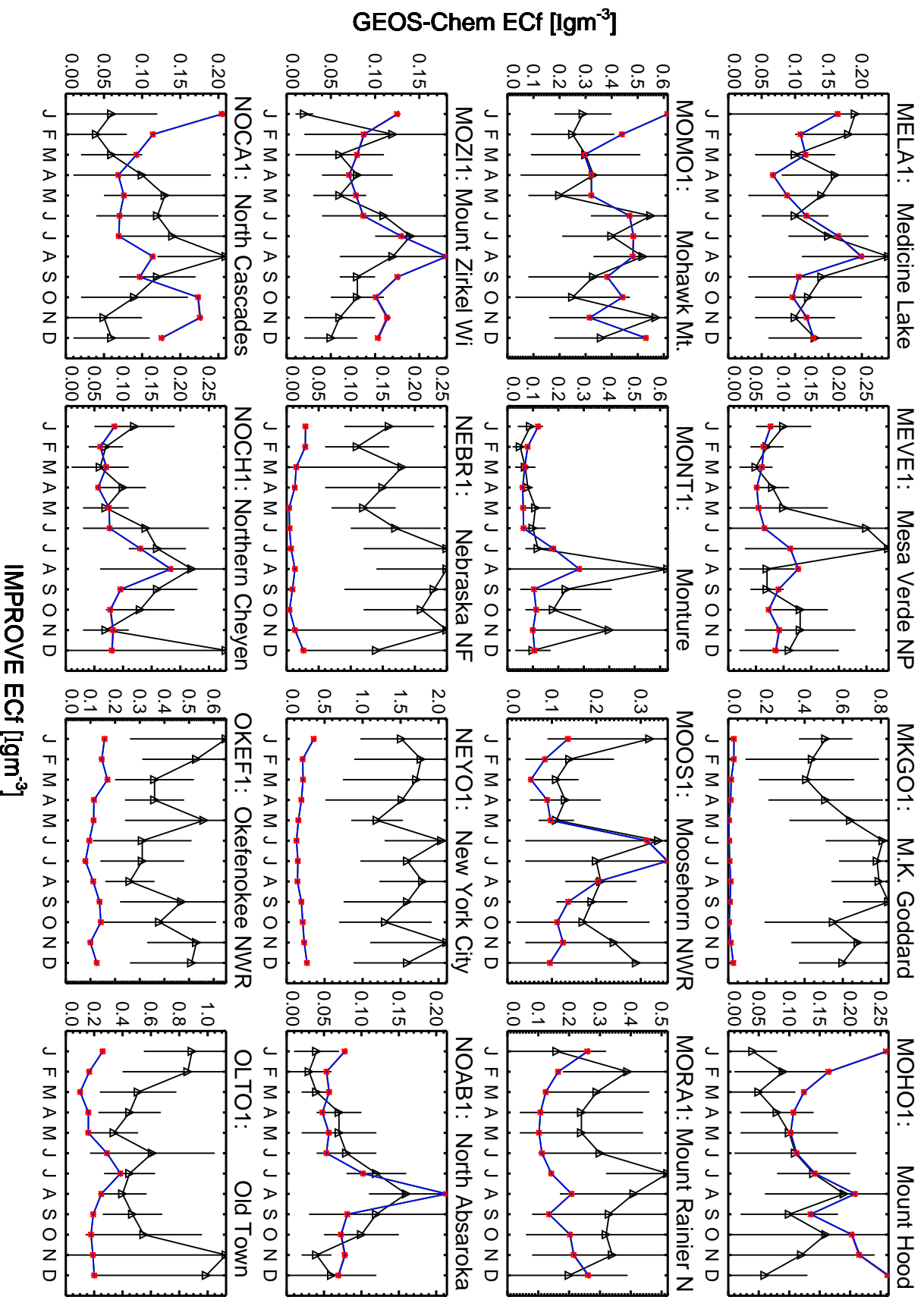
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



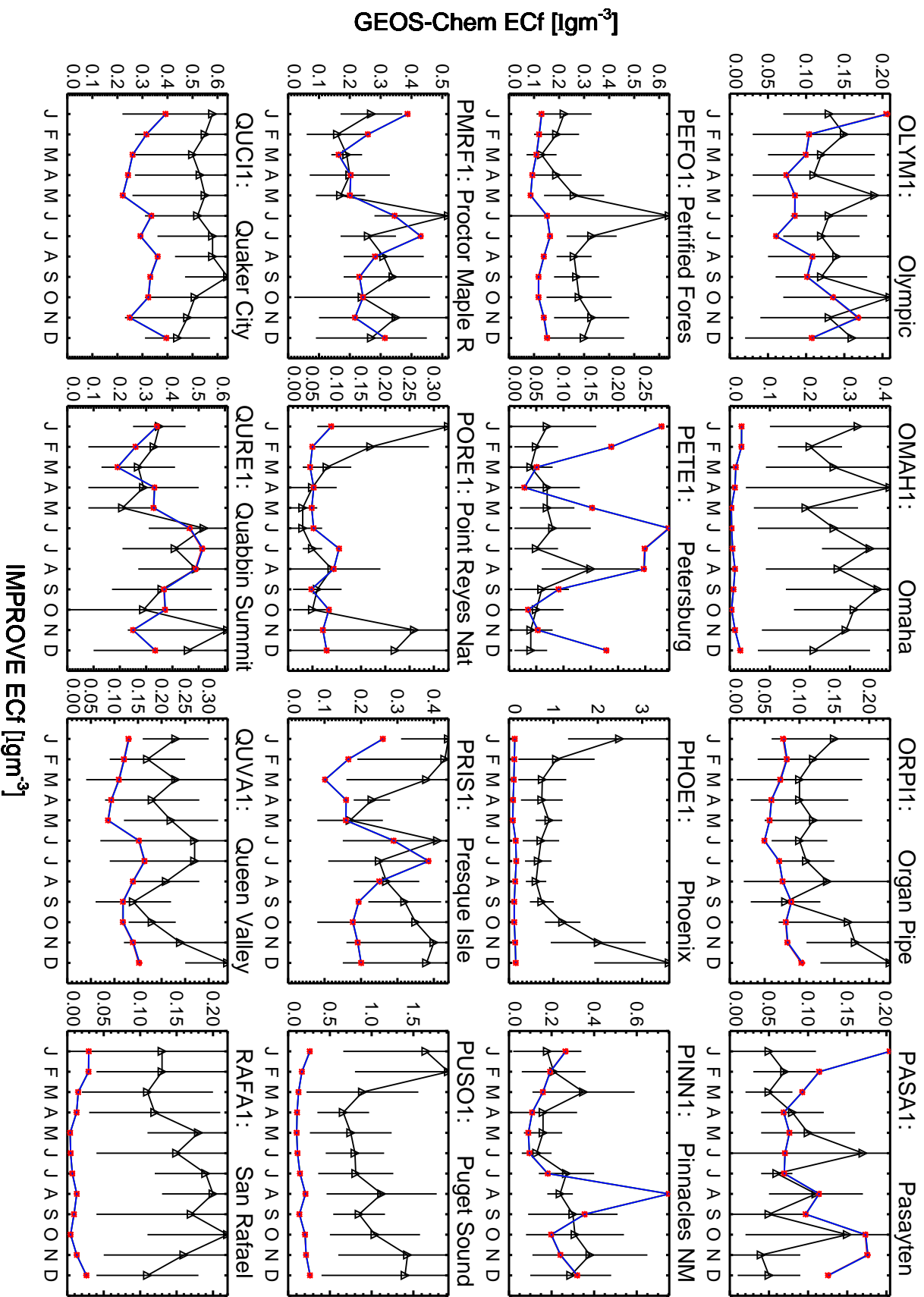
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

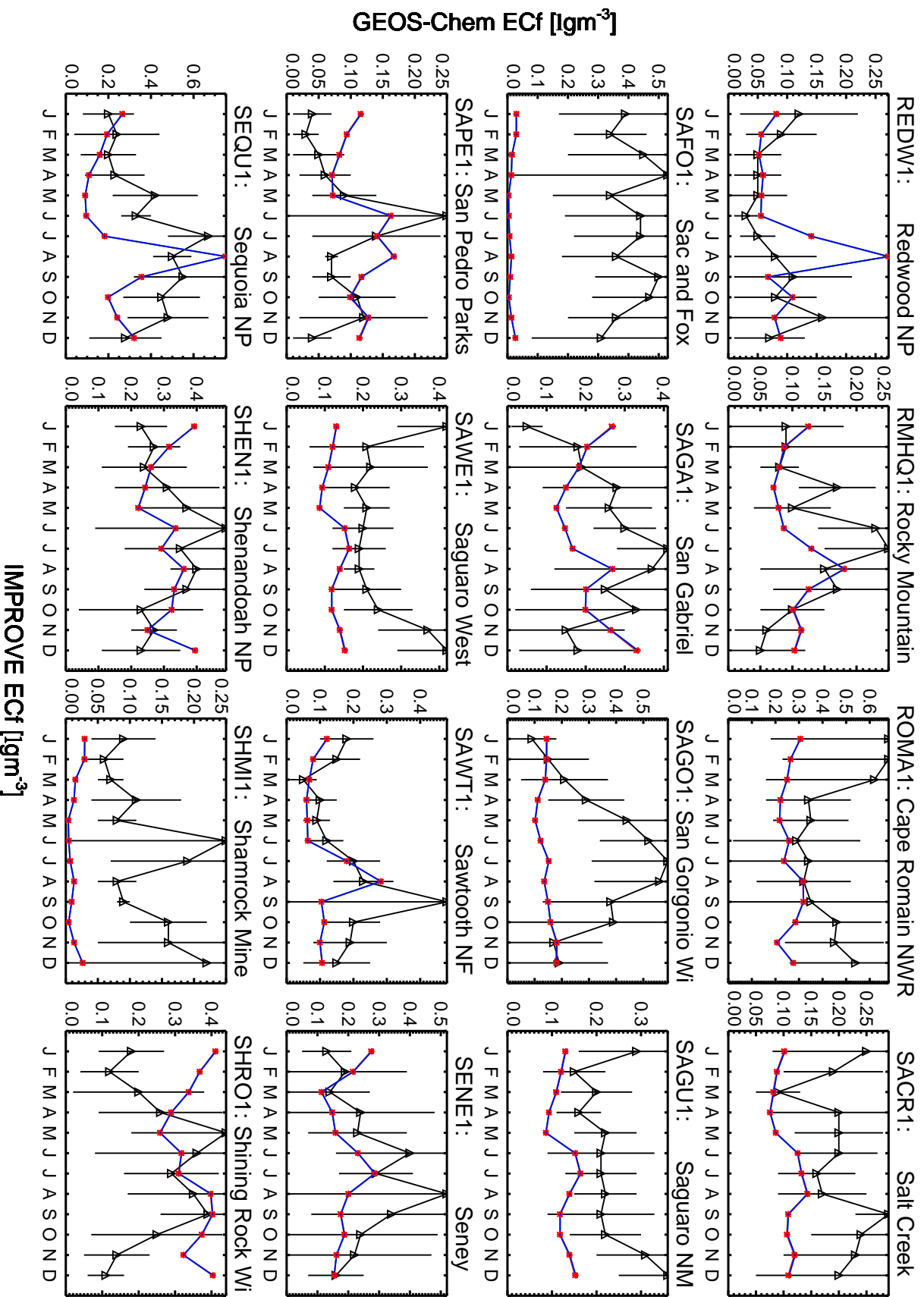


Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



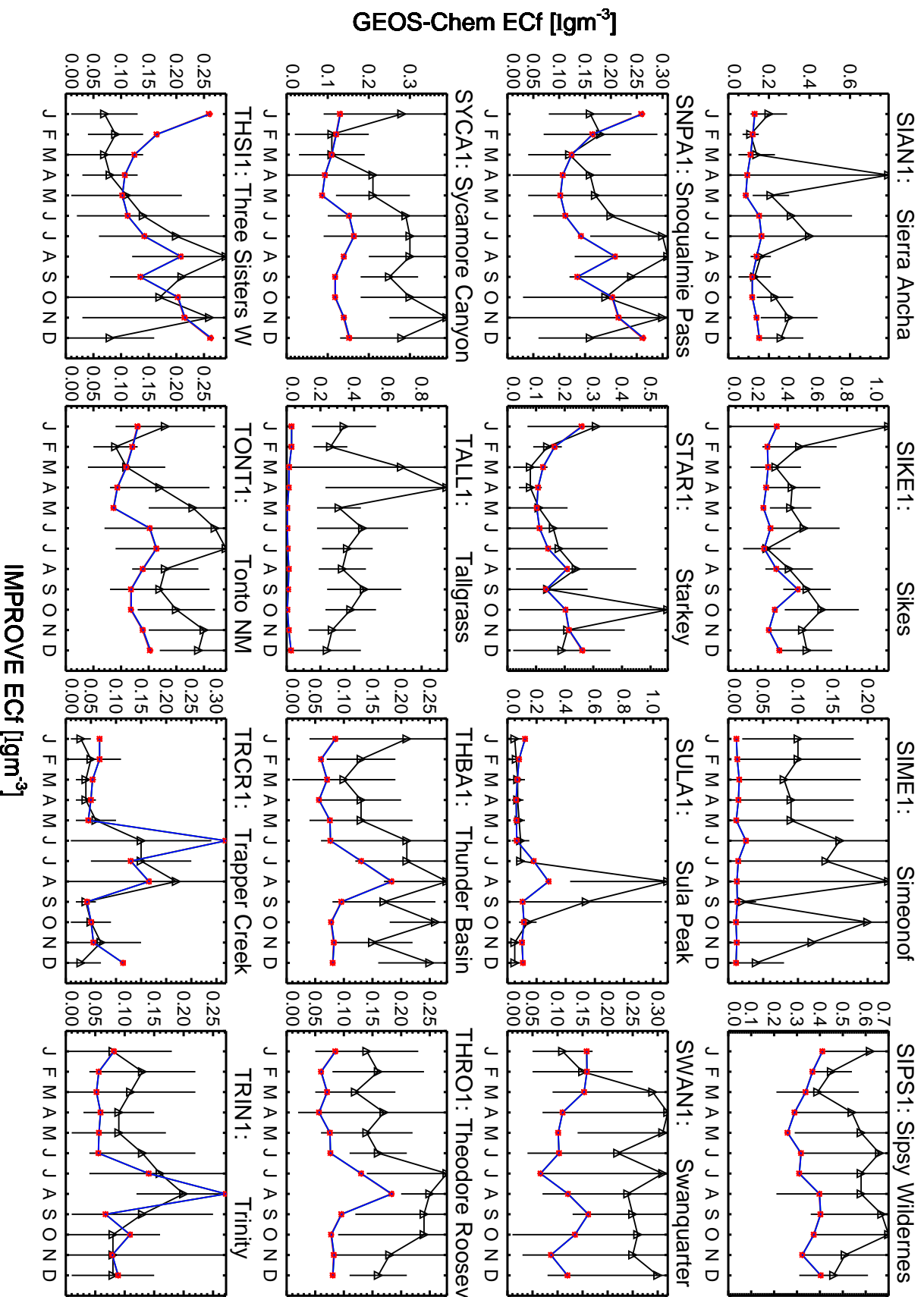
IMPROVE ECf [ $\mu\text{g m}^{-3}$ ]

Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)

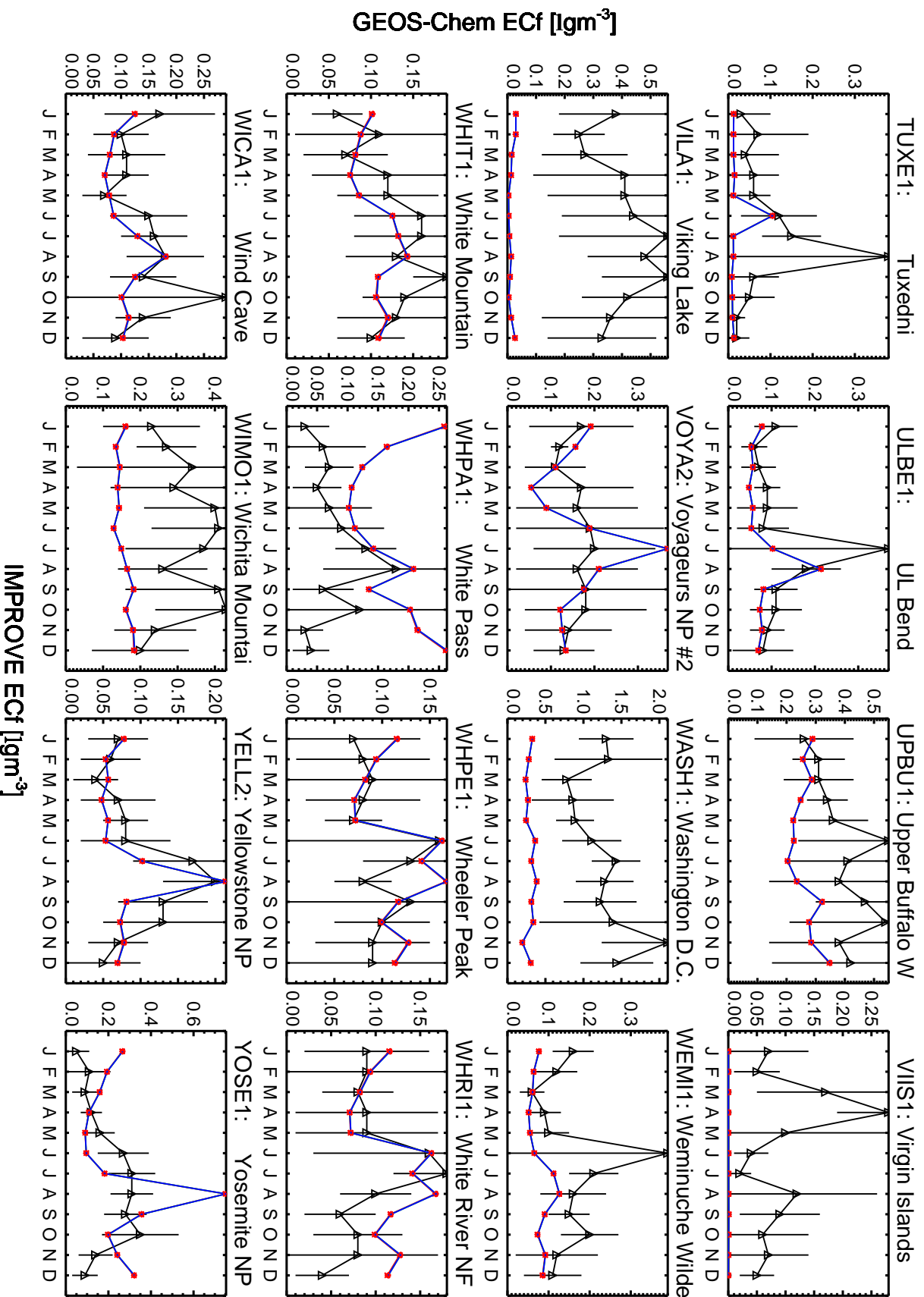




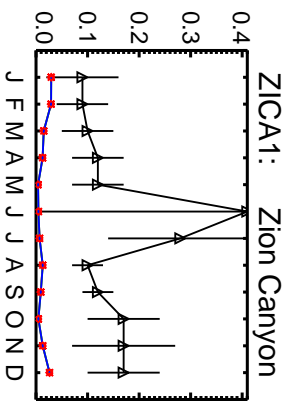
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Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



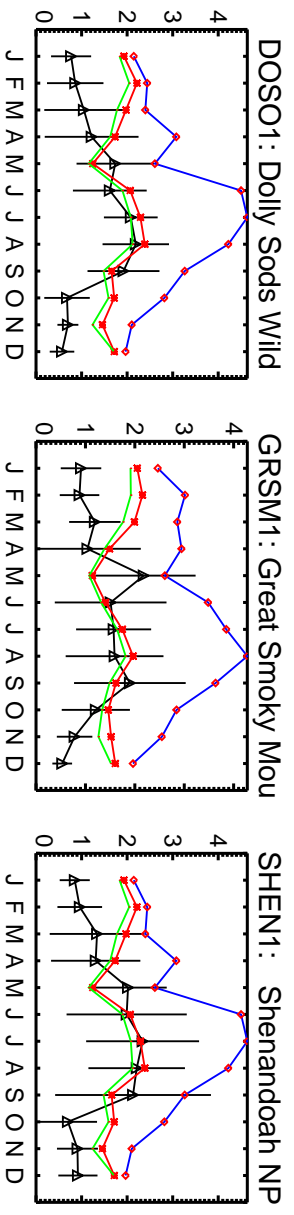
Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



GEOS-Chem ECf [lgm<sup>-3</sup>]

IMPROVE ECf [lgm<sup>-3</sup>]

Red: v11-02a (2013); Green: v11-02c (2013); Blue: v11-02d (2013)



GEOS-Chem NH<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]

IMPROVE NH<sub>4</sub>f [ $\mu\text{g m}^{-3}$ ]