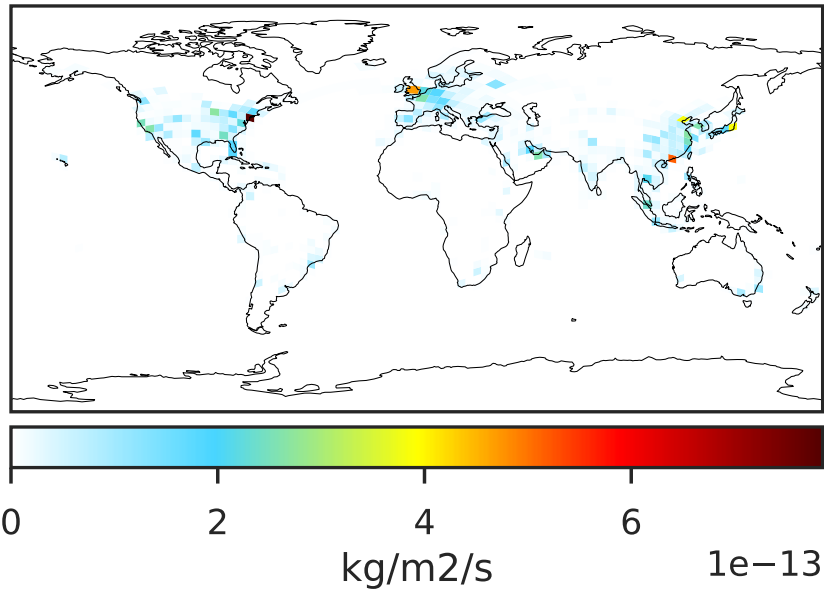
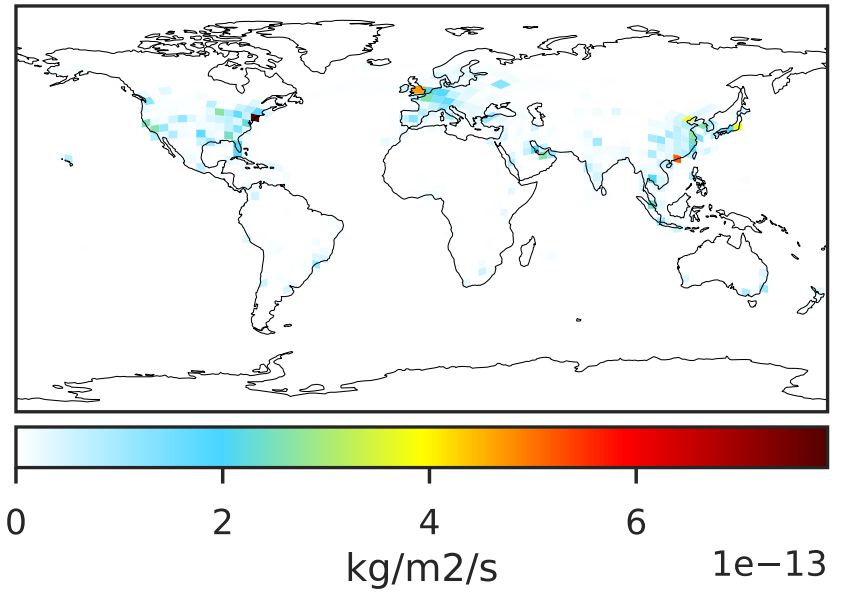


# EmisSOAP\_Aircraft (Jan2019)

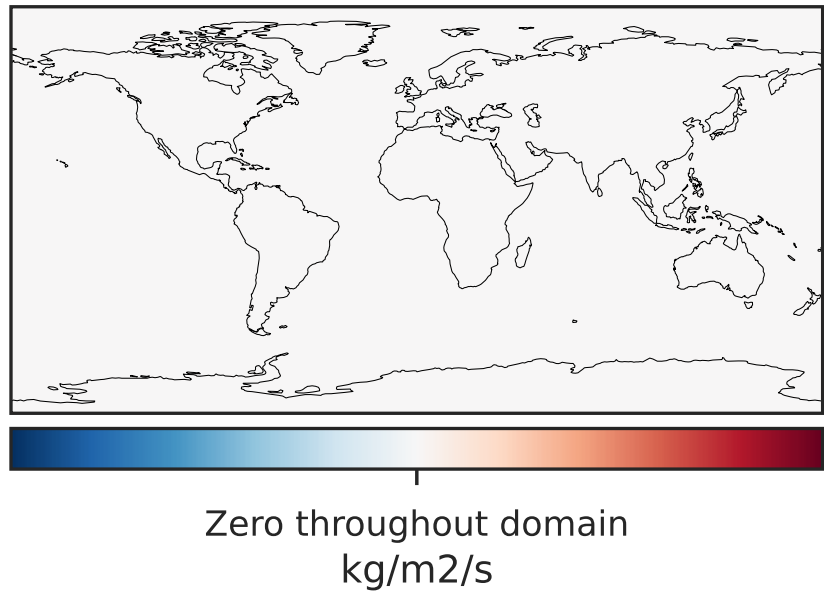
GCHP\_14.0.0 (Ref)  
c24



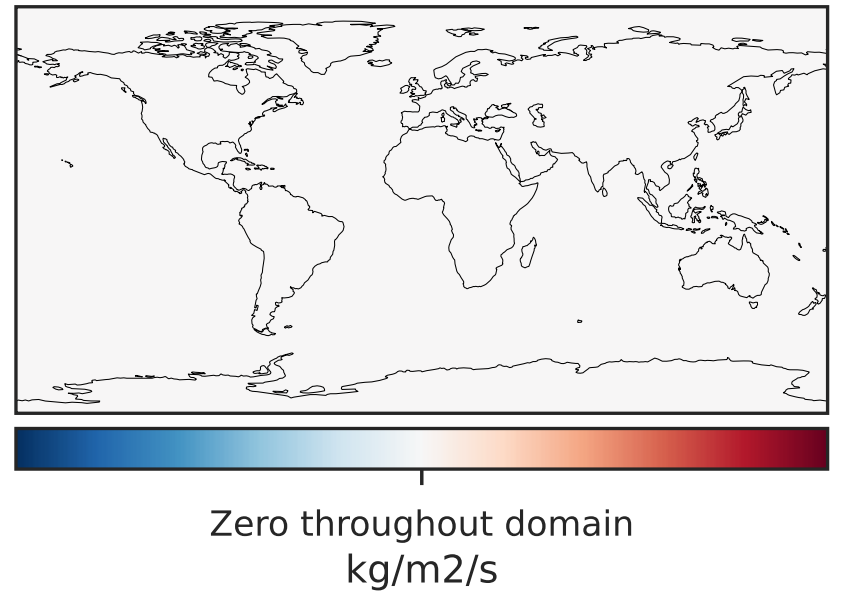
GCHP\_14.2.0 (Dev)  
c24



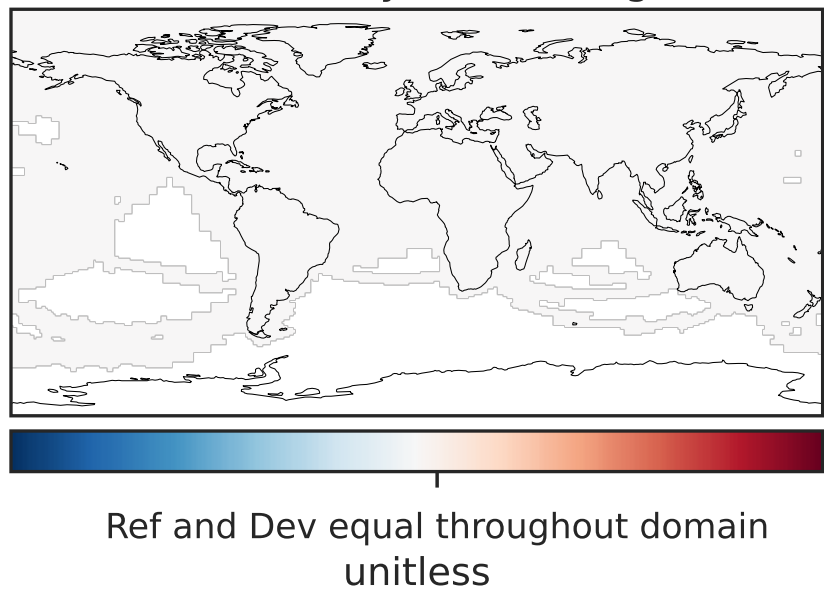
Difference (1x1.25)  
Dev - Ref, Dynamic Range



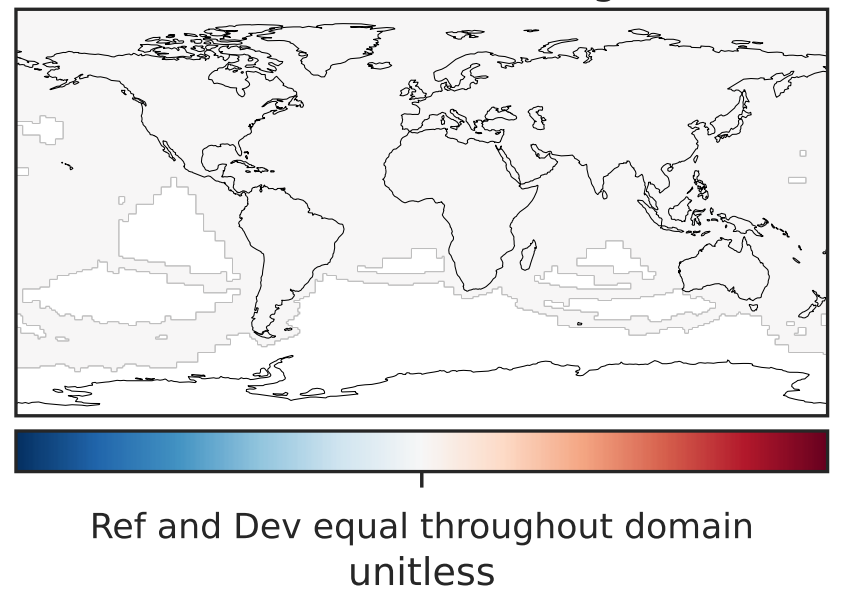
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



Ratio (1x1.25)  
Dev/Ref, Dynamic Range

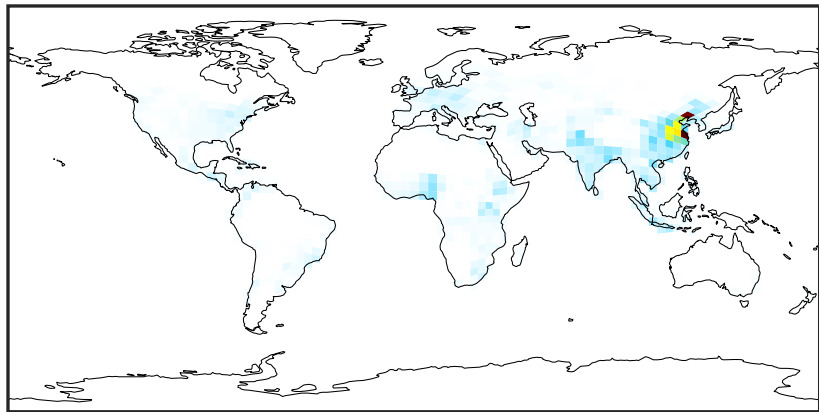


Ratio (1x1.25)  
Dev/Ref, Fixed Range



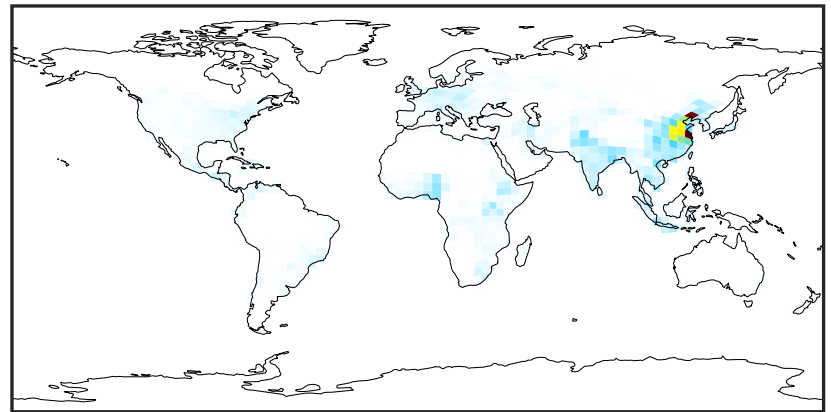
# EmisSOAP\_Anthro (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



0.0 1.5 3.0  $10^{-10}$  kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



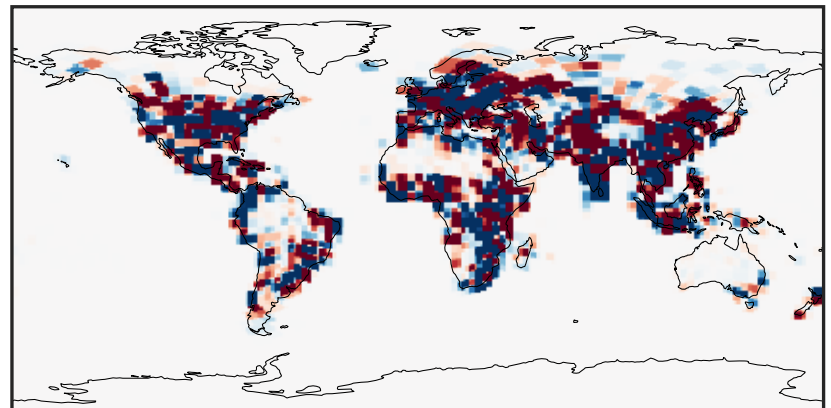
0.0 1.5 3.0  $10^{-10}$  kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



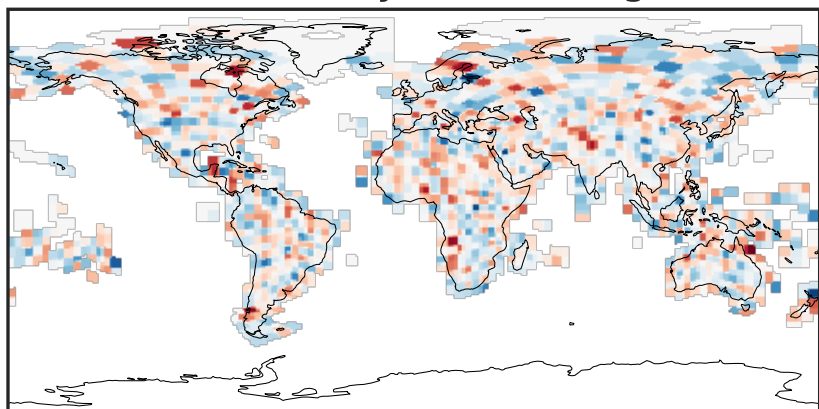
-5 0 5  $10^{-15}$  kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



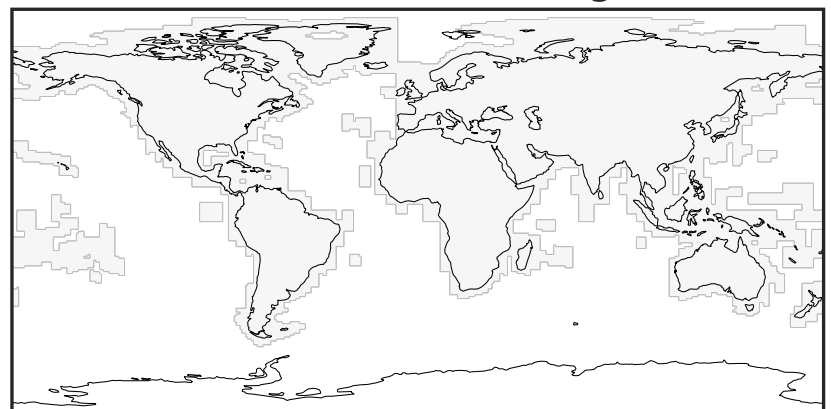
-2 0 2  $10^{-17}$  kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.9999316 1.000000 1.0000684 unitless

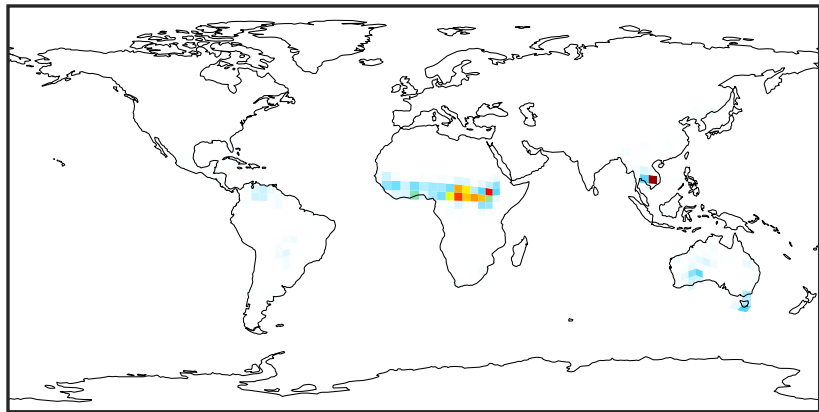
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00 unitless

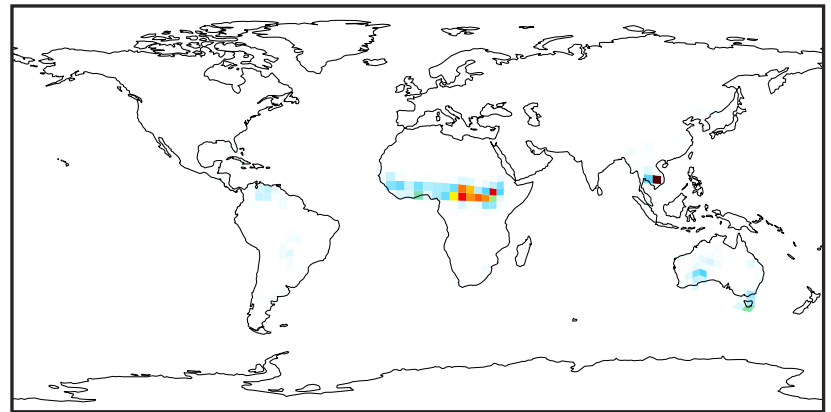
# EmisSOAP\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



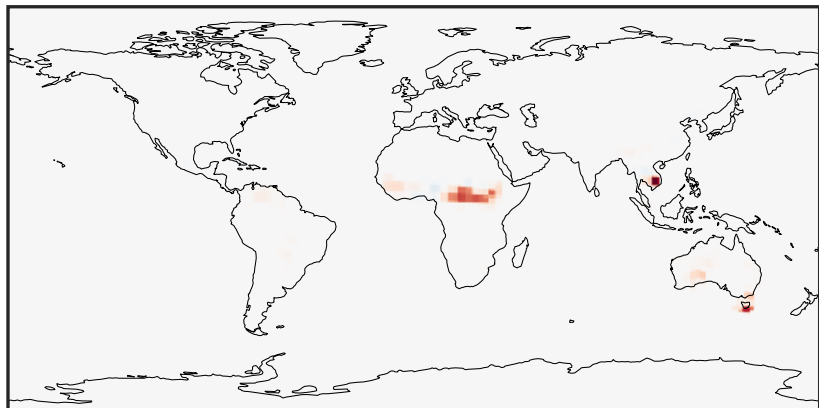
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

GCHP\_14.2.0 (Dev)  
c24



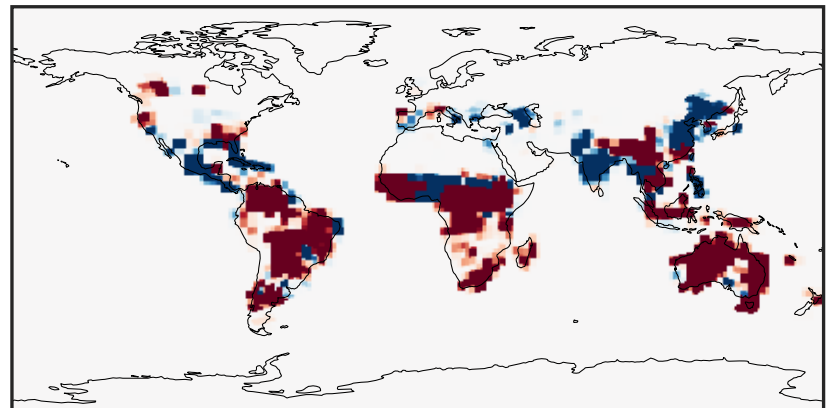
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

Difference (1x1.25)  
Dev - Ref, Dynamic Range



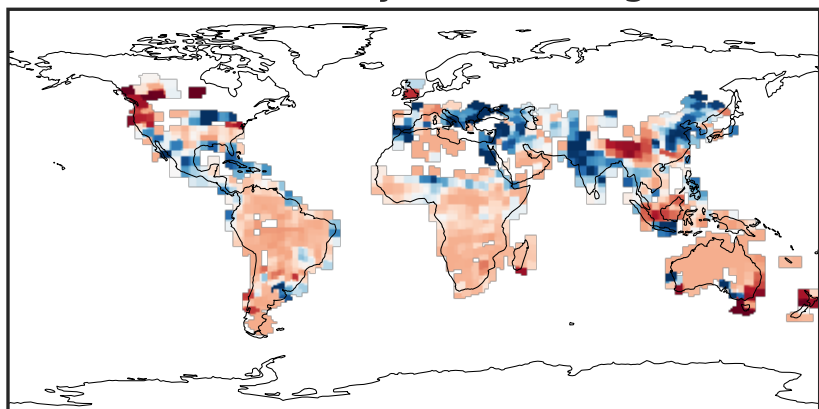
-2.5 0.0 2.5  
kg/m<sup>2</sup>/s 1e-12

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



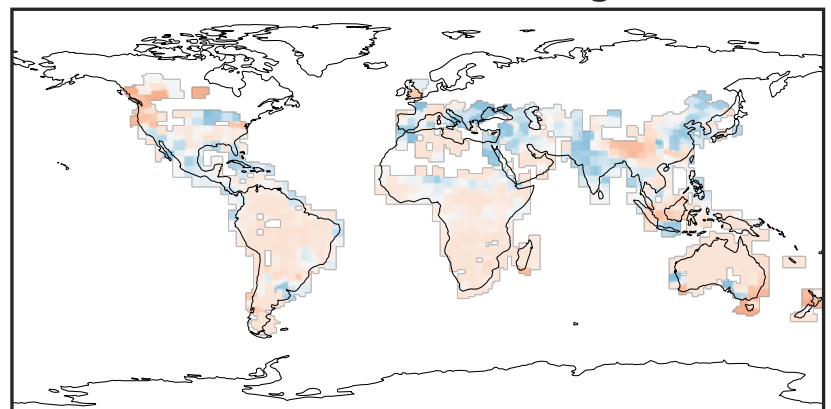
-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-15

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.7787 0.8894 1.0000 1.1421 1.2841  
unitless

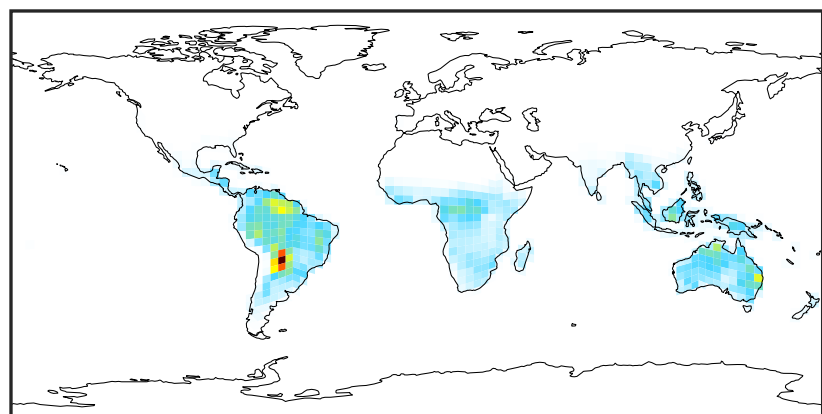
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

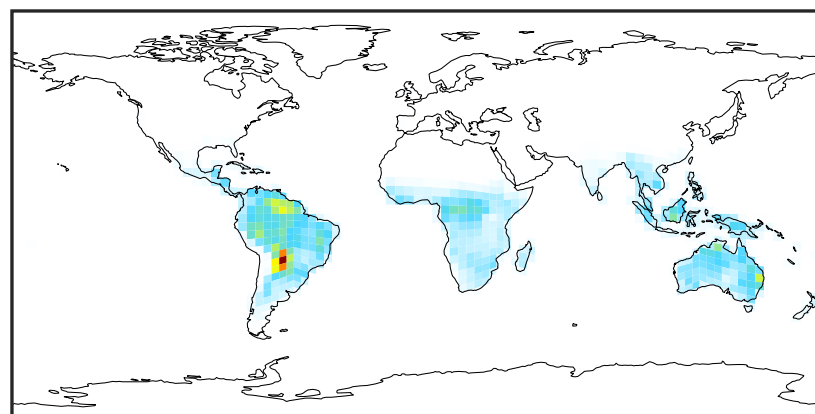
# EmisSOAP\_Biogenic (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



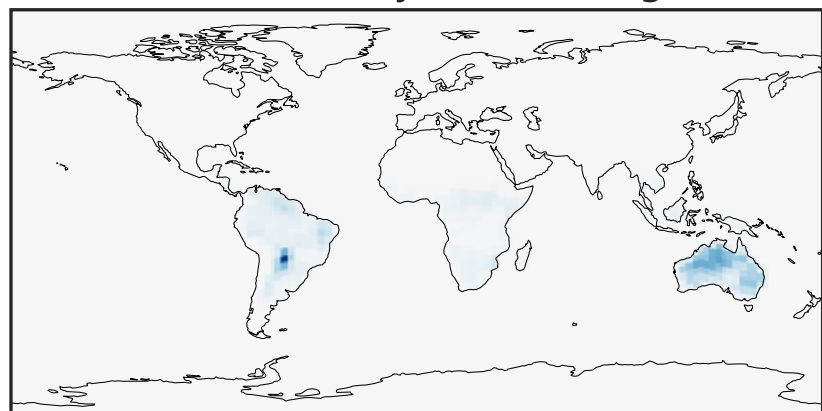
0.0 1.5 3.0  $1e-11$   
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



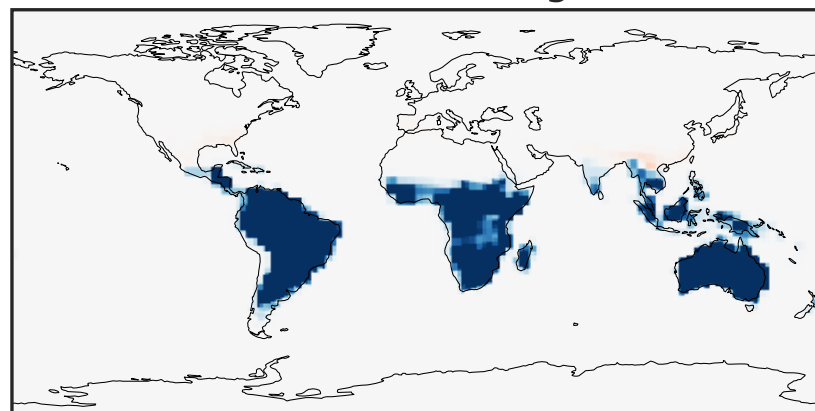
0.0 1.5 3.0  $1e-11$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



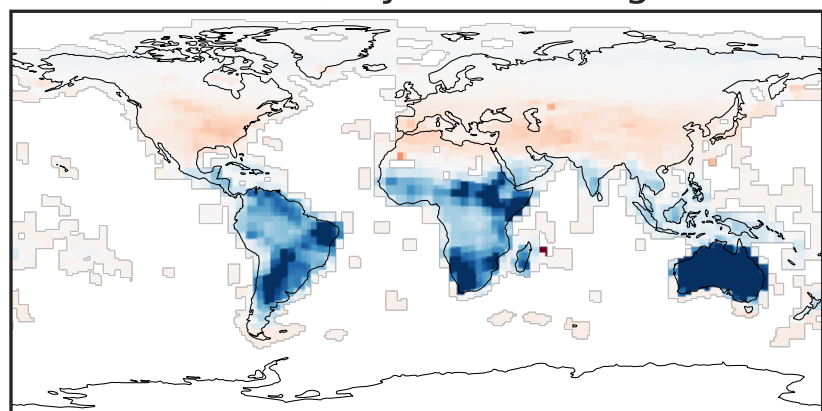
-2 0 2  $1e-12$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



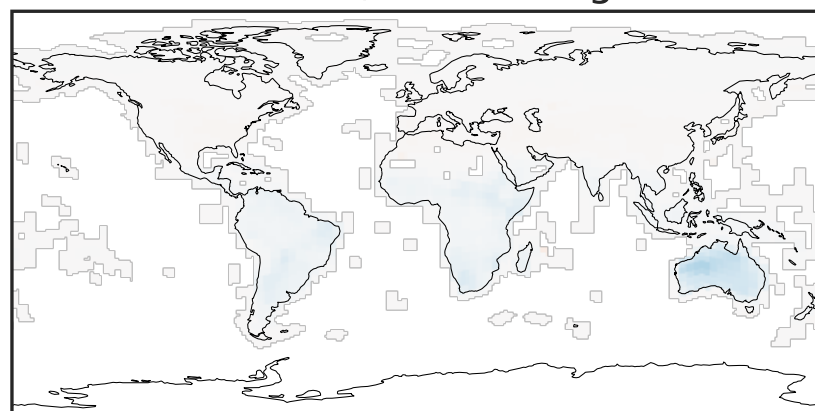
-4 0 4  $1e-14$   
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.9499 0.9749 1.0000 1.0264 1.0528  
unitless

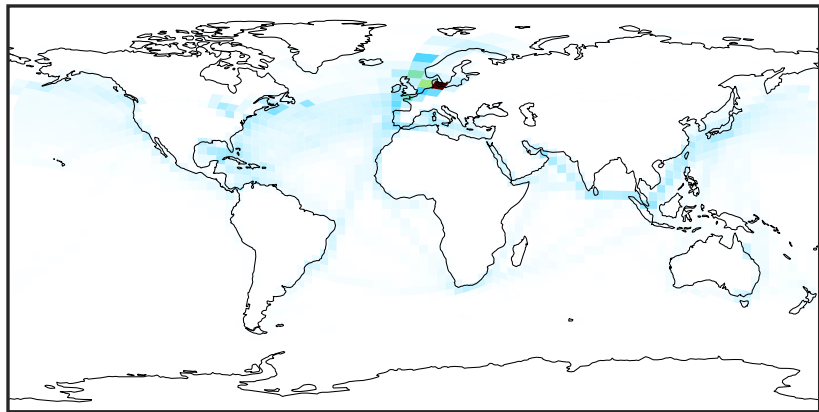
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

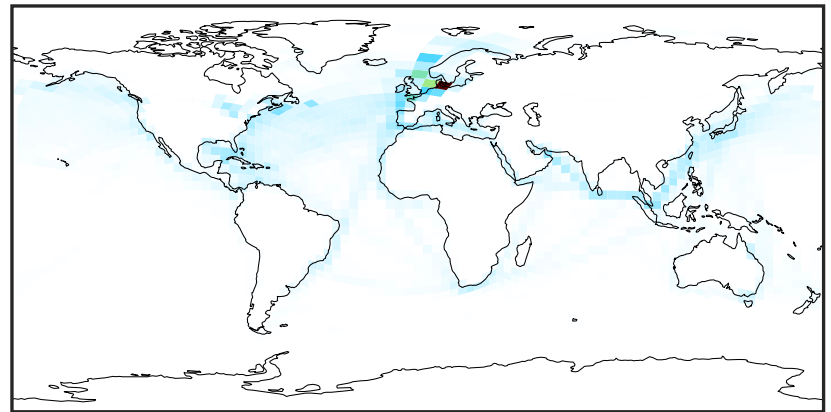
# EmisSOAP\_Ship (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



0.0 0.8 1.6 2.4  
kg/m<sup>2</sup>/s 1e-13

GCHP\_14.2.0 (Dev)  
c24



0.0 0.8 1.6 2.4  
kg/m<sup>2</sup>/s 1e-13

Difference (1x1.25)  
Dev - Ref, Dynamic Range



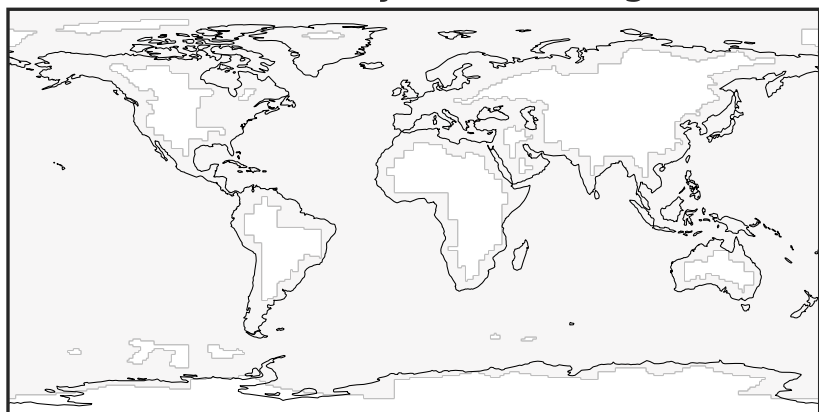
Zero throughout domain  
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



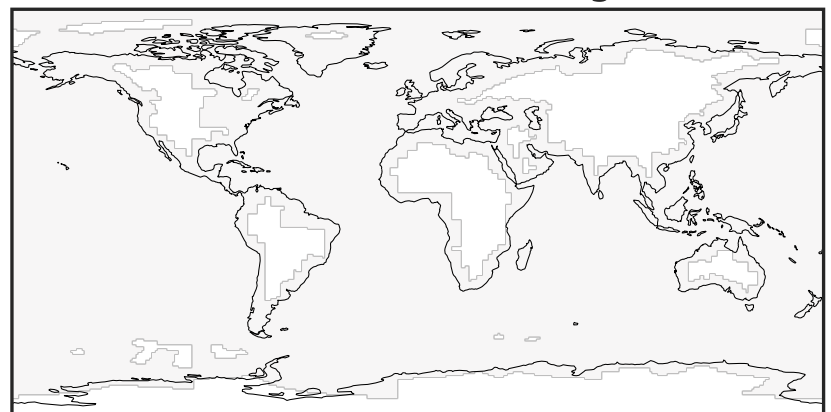
Zero throughout domain  
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ref and Dev equal throughout domain  
unitless

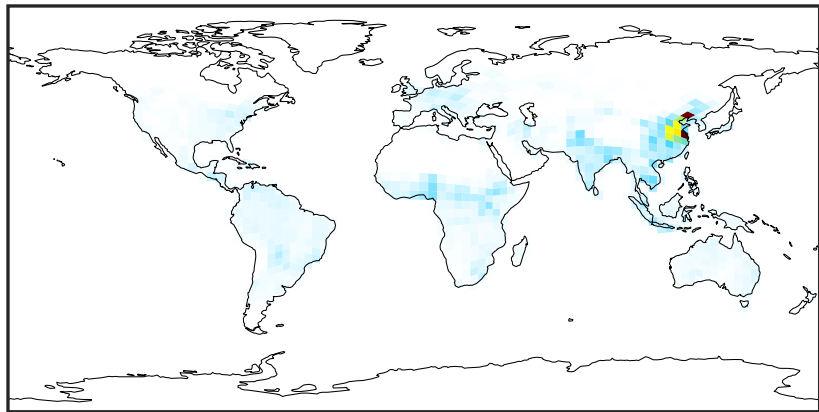
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Ref and Dev equal throughout domain  
unitless

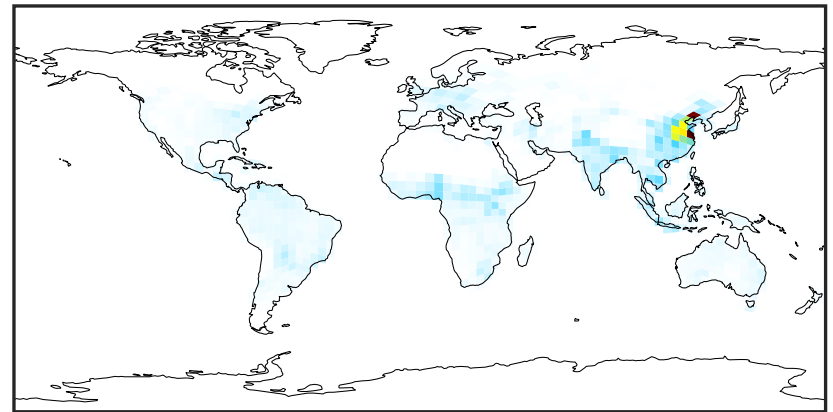
# EmisSOAP\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



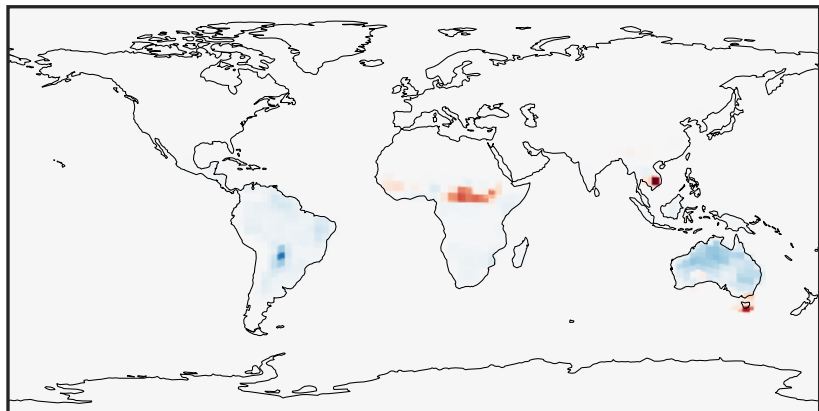
0.0 1.5 3.0  $1e-10$   
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



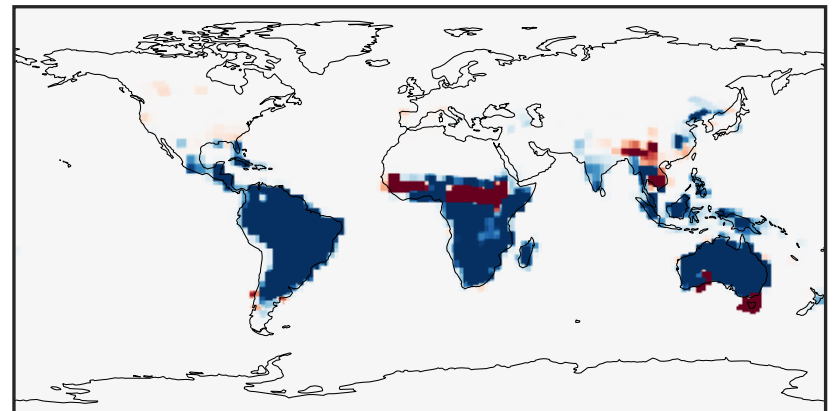
0.0 1.5 3.0  $1e-10$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



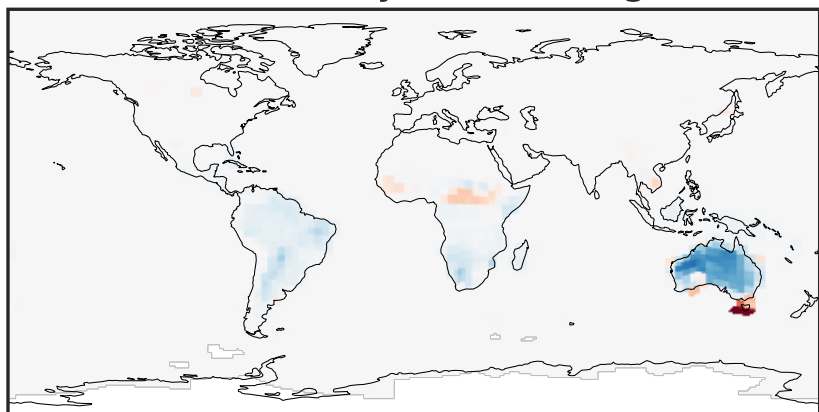
-2.5 0.0 2.5  $1e-12$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



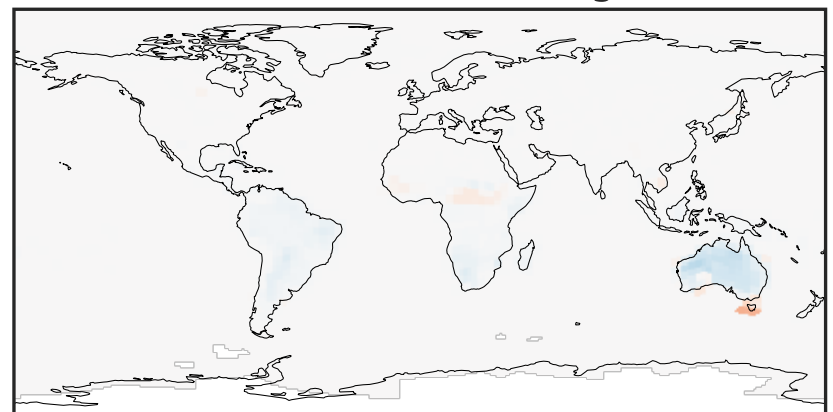
-4 0 4  $1e-14$   
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.7816 0.8908 1.0000 1.1398 1.2795  
unitless

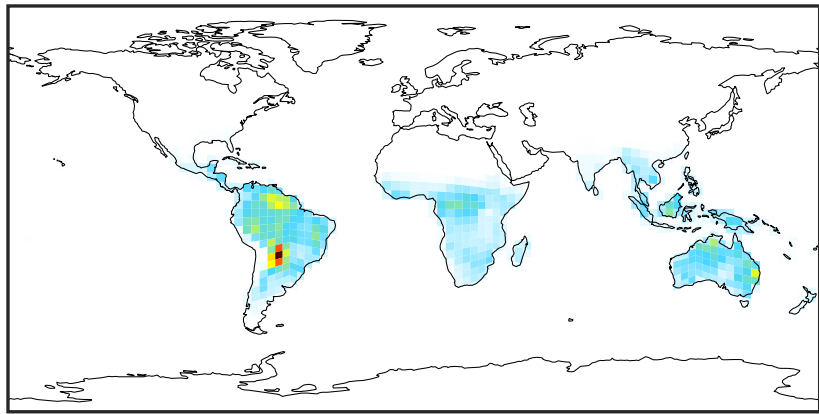
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

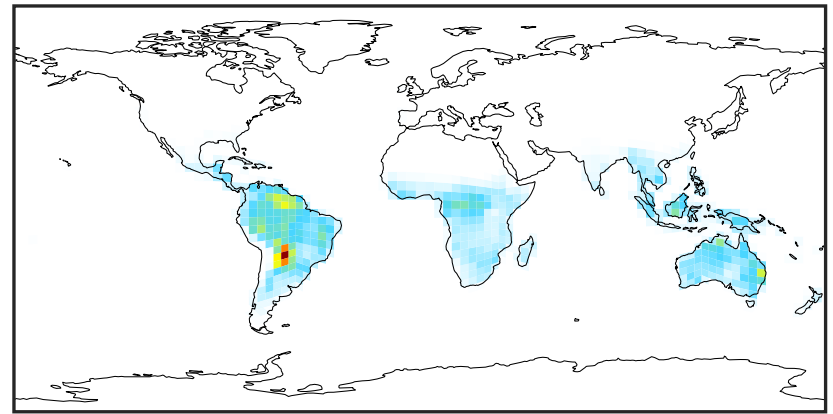
# EmisSOAS\_Biogenic (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



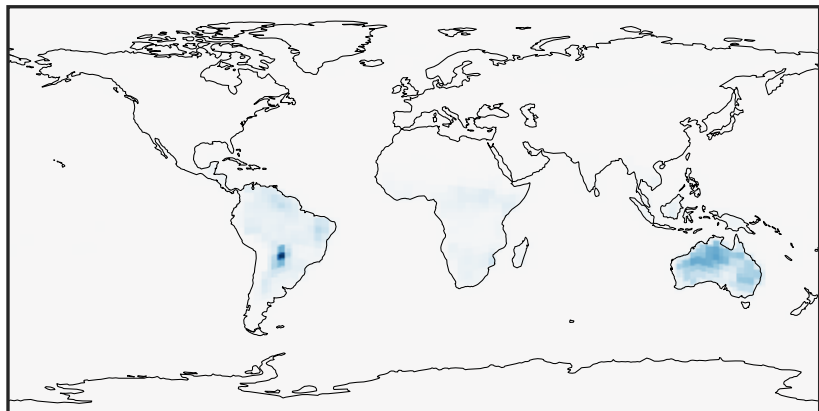
0.0 1.5 3.0  $1e-11$   
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



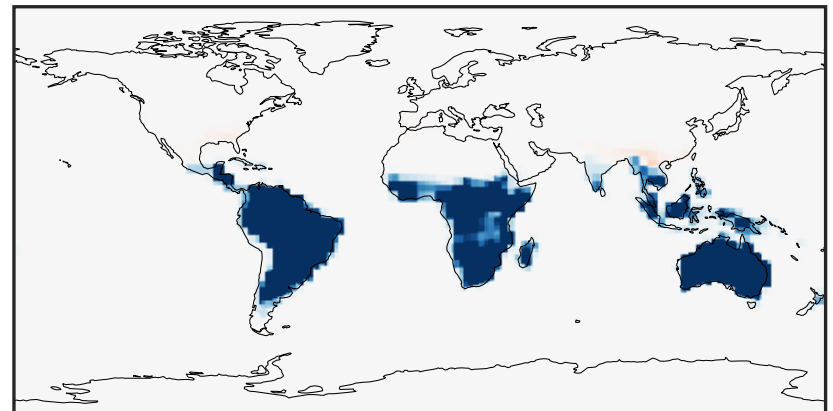
0.0 1.5 3.0  $1e-11$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



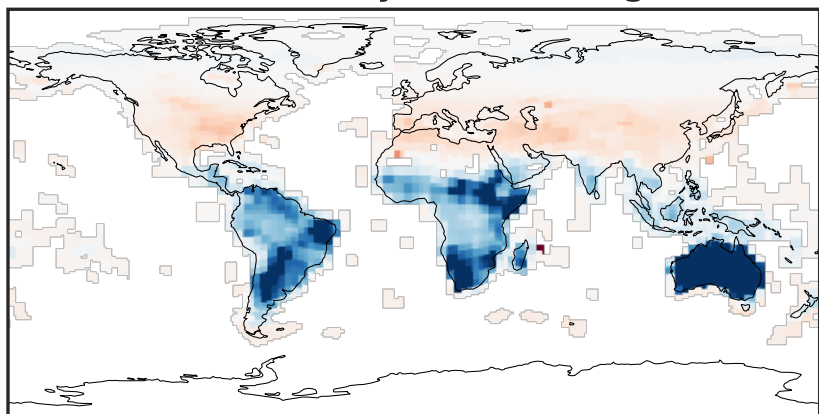
-2 0 2  $1e-12$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



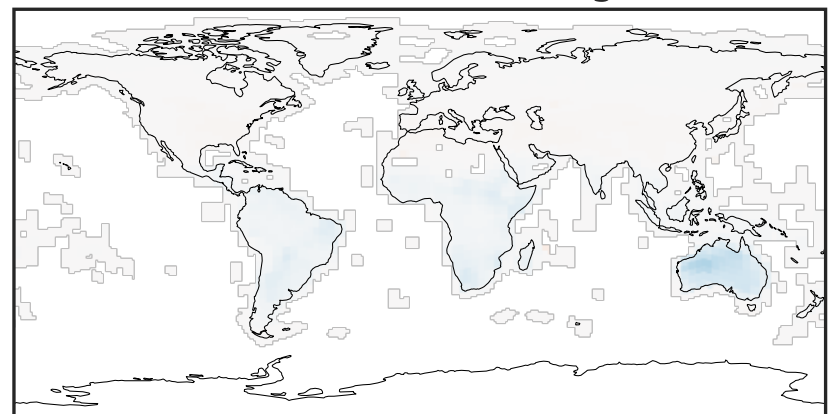
-4 0 4  $1e-14$   
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.9499 0.9749 1.0000 1.0264 1.0528  
unitless

Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless