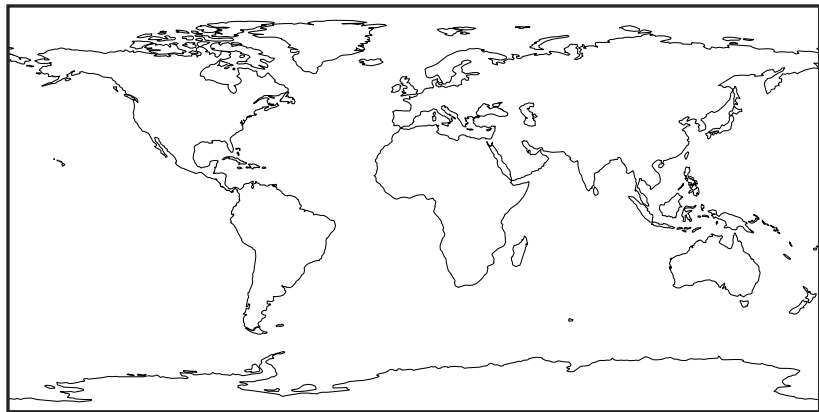


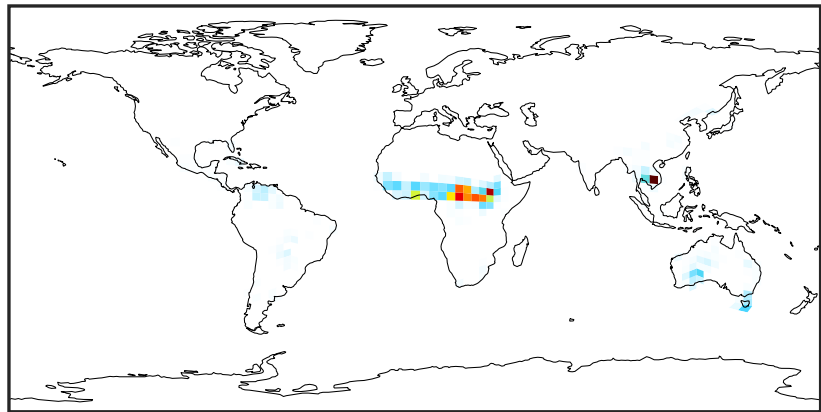
# EmisACTA\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



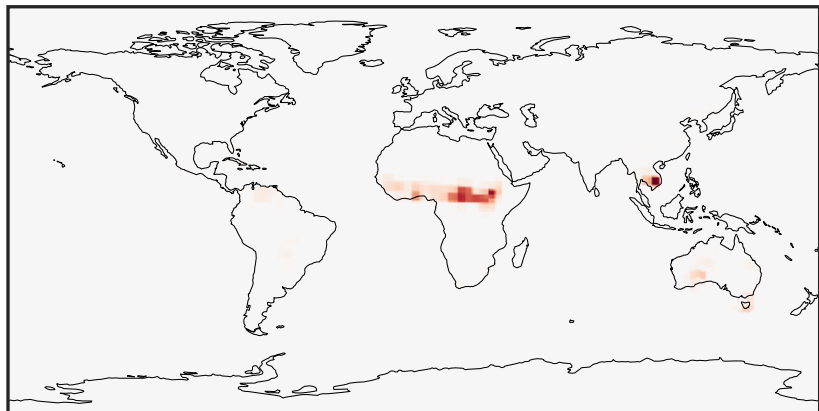
Zero throughout domain  
kg/m2/s

GCHP\_14.2.0 (Dev)  
c24



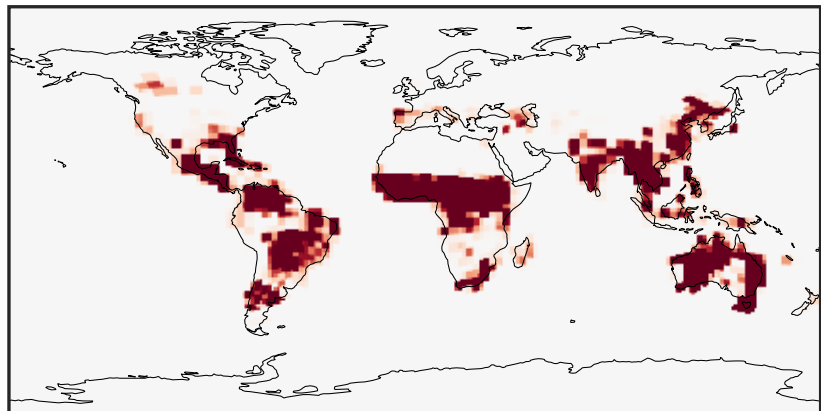
0 3 6 9  
kg/m2/s  $1e-11$

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



-6 0 6  
kg/m2/s  $1e-11$

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



-1.5 0.0 1.5  
kg/m2/s  $1e-13$

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



Undefined throughout domain  
unitless

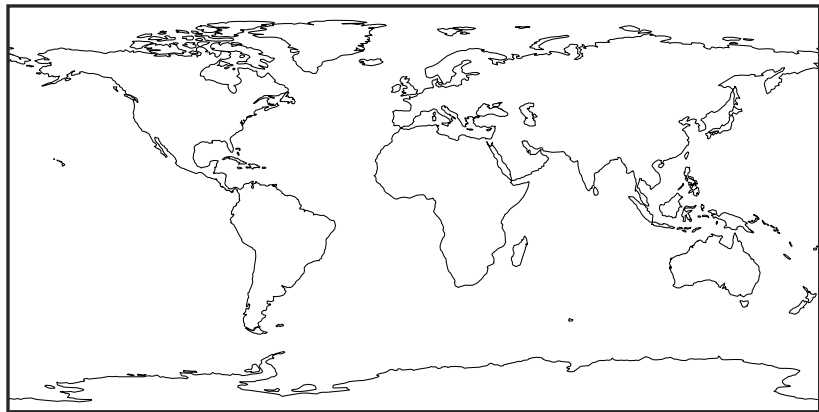
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

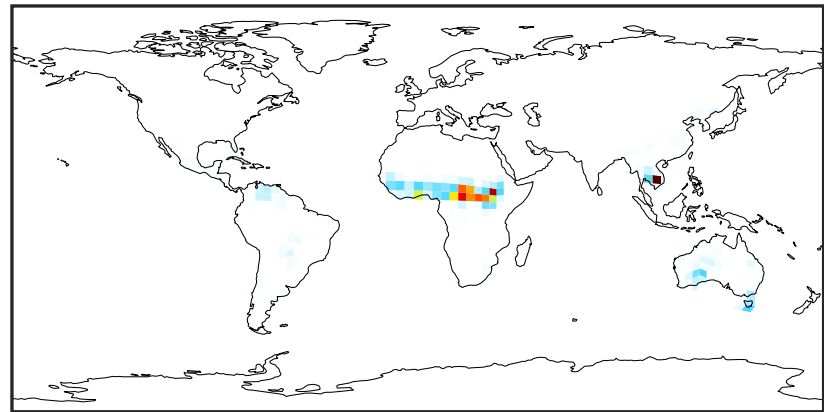
# EmisACTA\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



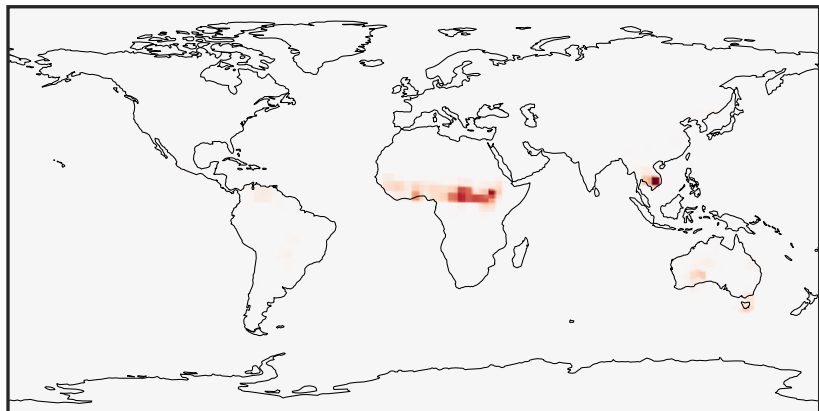
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



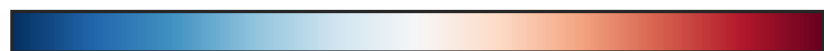
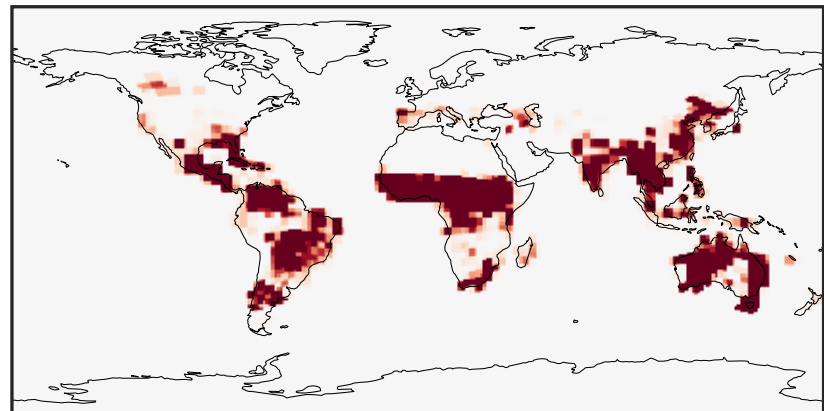
0 3 6 9  
kg/m<sup>2</sup>/s 1e-11

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



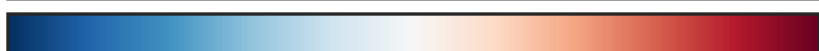
-6 0 6  
kg/m<sup>2</sup>/s 1e-11

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



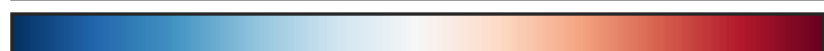
-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-13

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



Undefined throughout domain  
unitless

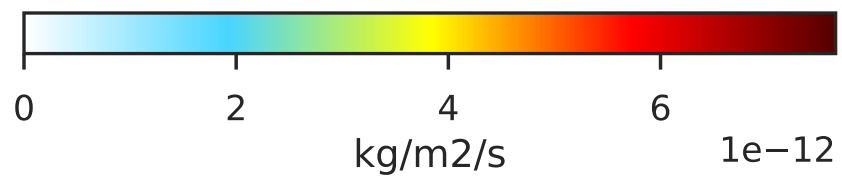
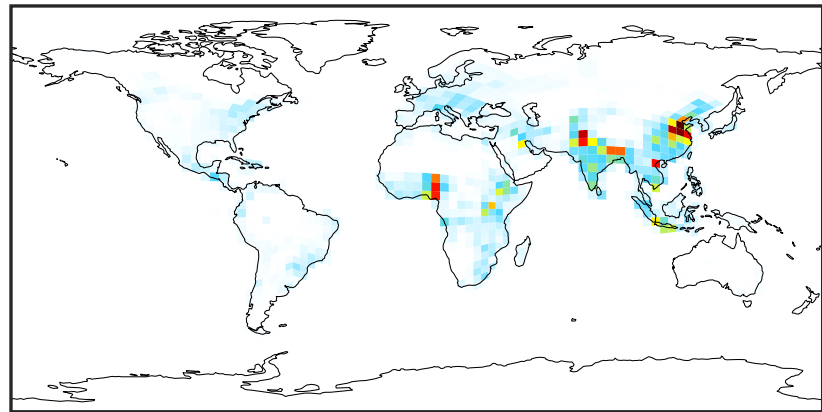
Ratio (1x1.25)  
Dev/Ref, Fixed Range



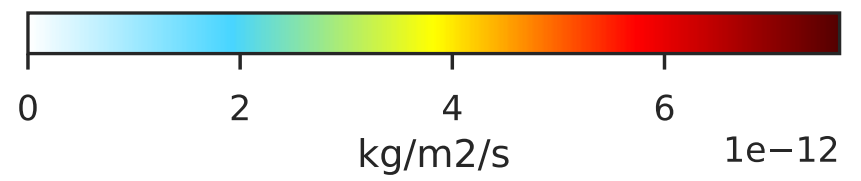
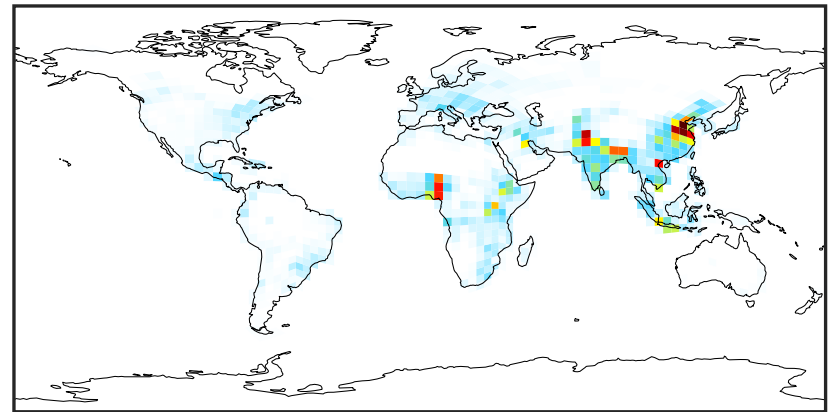
Undefined throughout domain  
unitless

# EmisALD2\_Anthro (Jan2019)

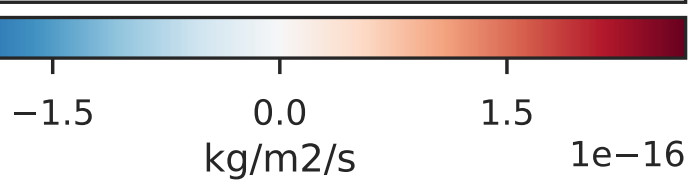
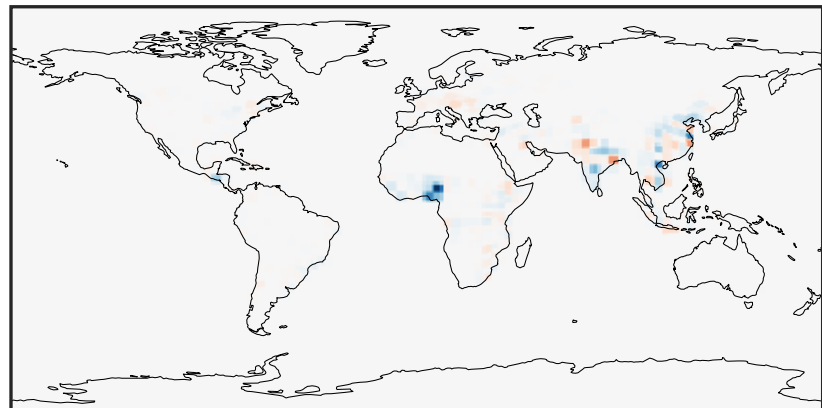
GCHP\_14.0.0 (Ref)  
c24



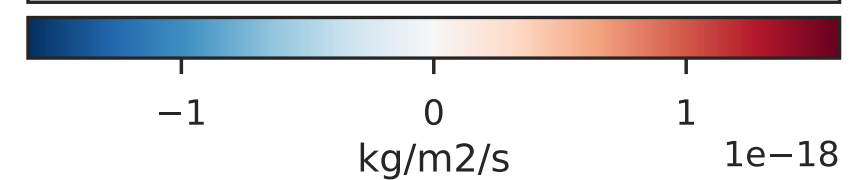
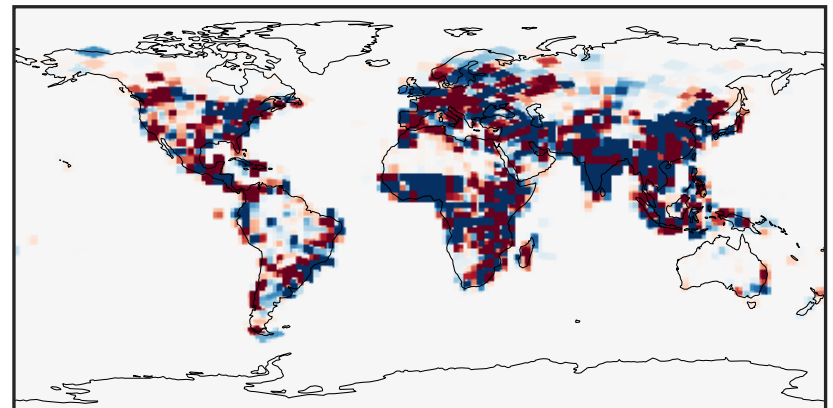
GCHP\_14.2.0 (Dev)  
c24



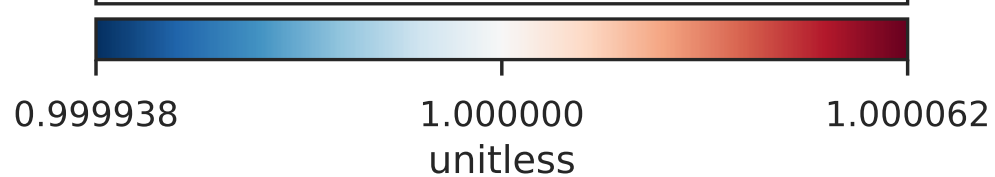
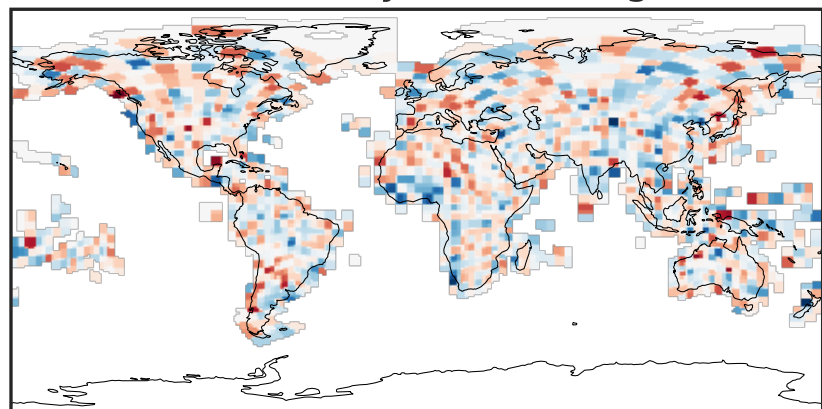
Difference (1x1.25)  
Dev - Ref, Dynamic Range



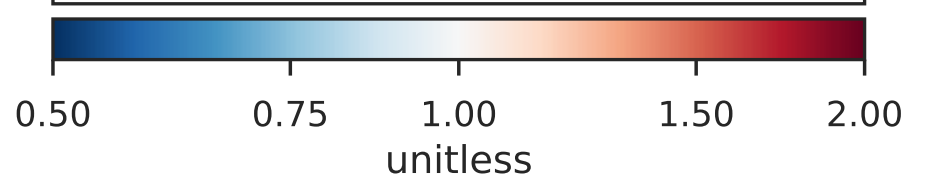
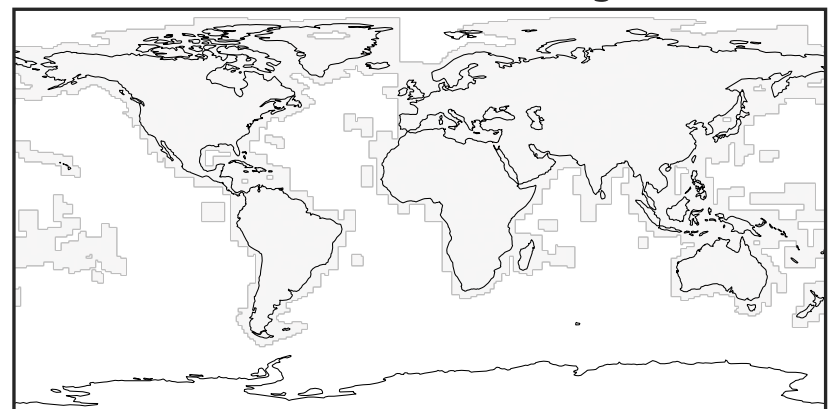
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

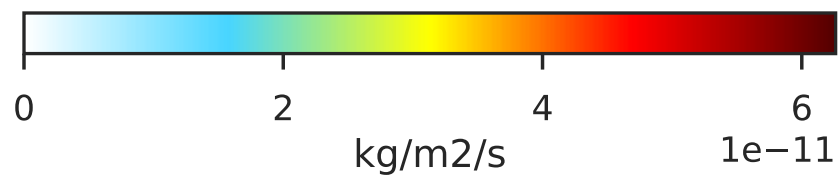
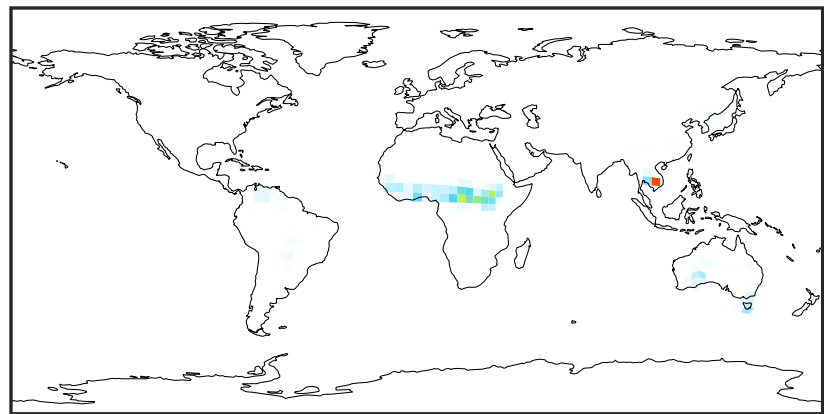


Ratio (1x1.25)  
Dev/Ref, Fixed Range

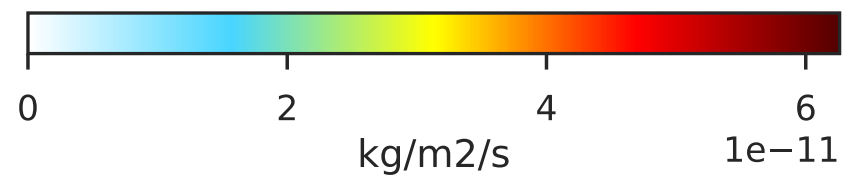
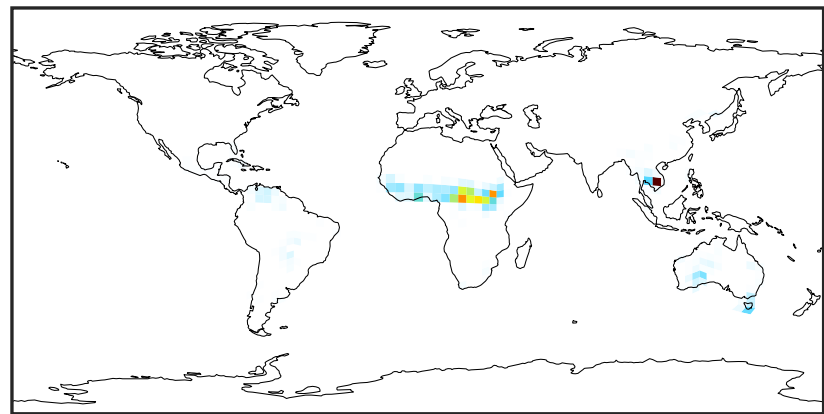


# EmisALD2\_BioBurn (Jan2019)

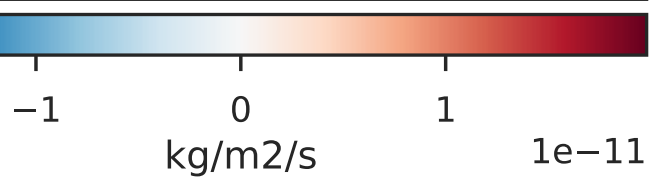
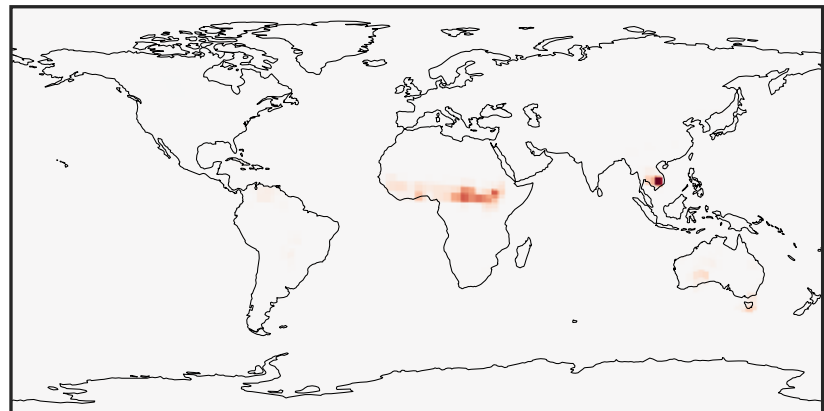
GCHP\_14.0.0 (Ref)  
c24



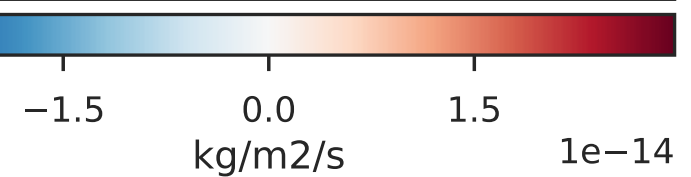
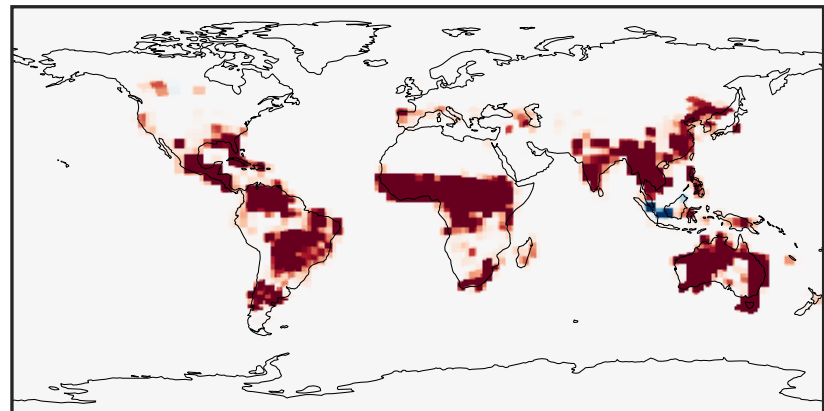
GCHP\_14.2.0 (Dev)  
c24



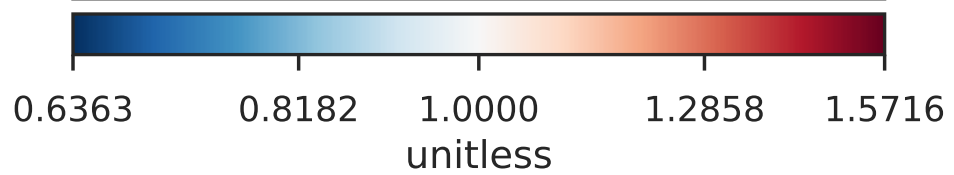
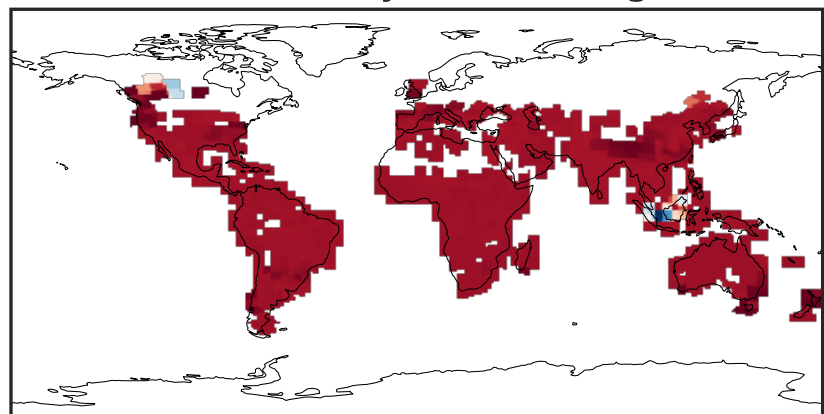
Difference (1x1.25)  
Dev - Ref, Dynamic Range



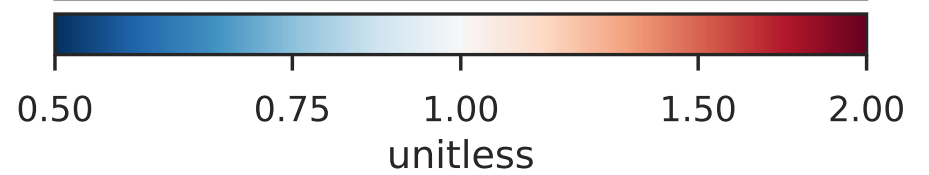
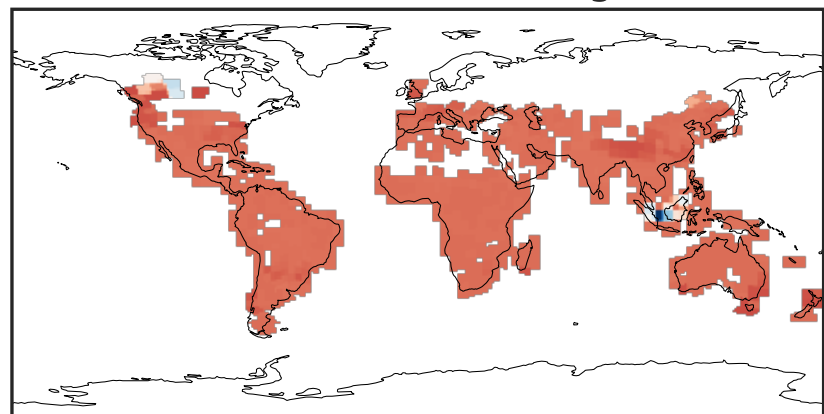
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

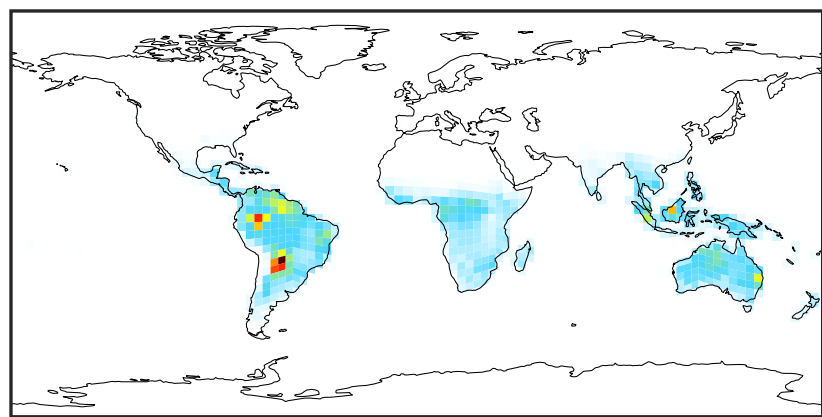


Ratio (1x1.25)  
Dev/Ref, Fixed Range



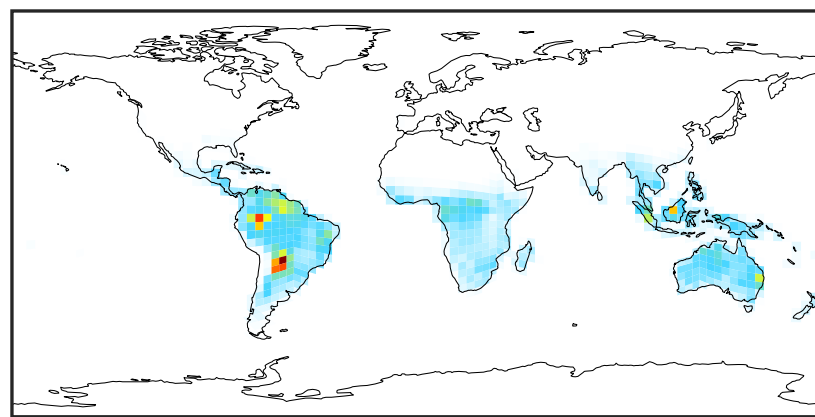
# EmisALD2\_Biogenic (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



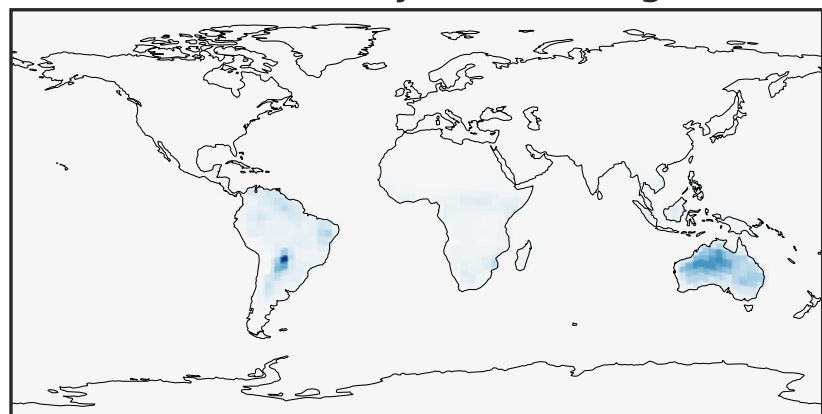
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

GCHP\_14.2.0 (Dev)  
c24



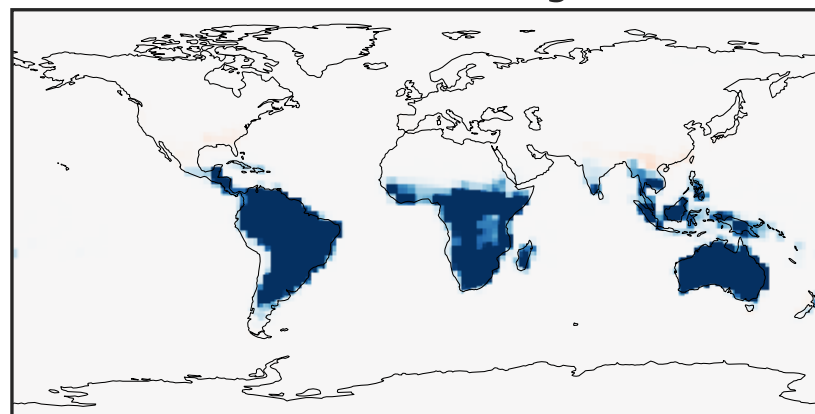
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

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



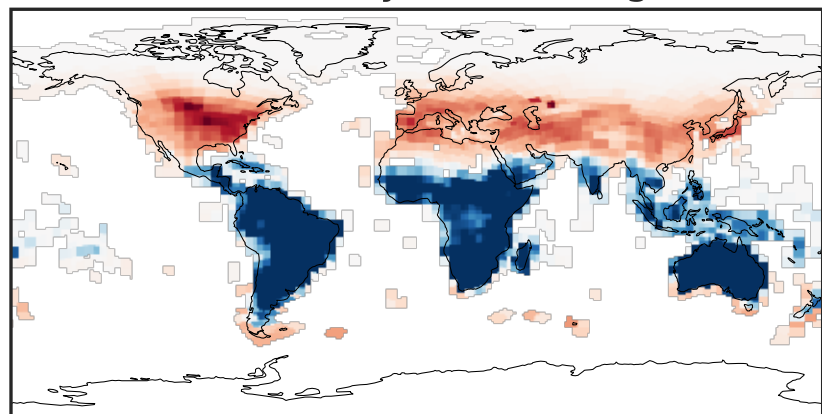
-2 0 2  
kg/m<sup>2</sup>/s 1e-12

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



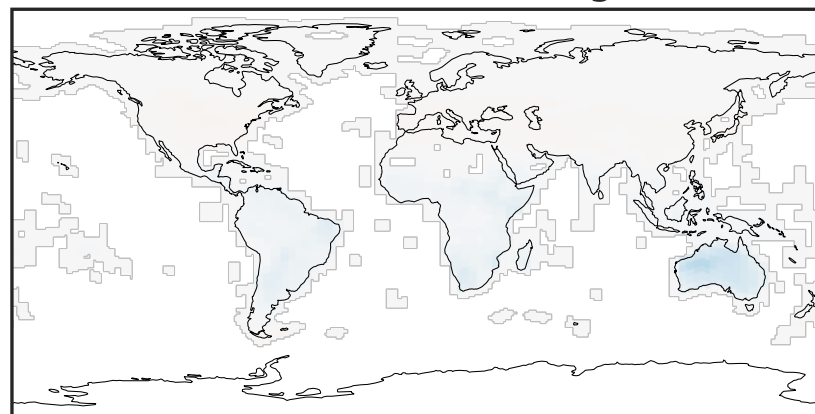
-6 0 6  
kg/m<sup>2</sup>/s 1e-14

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



0.98205 0.99103 1.00000 1.00914 1.01828  
unitless

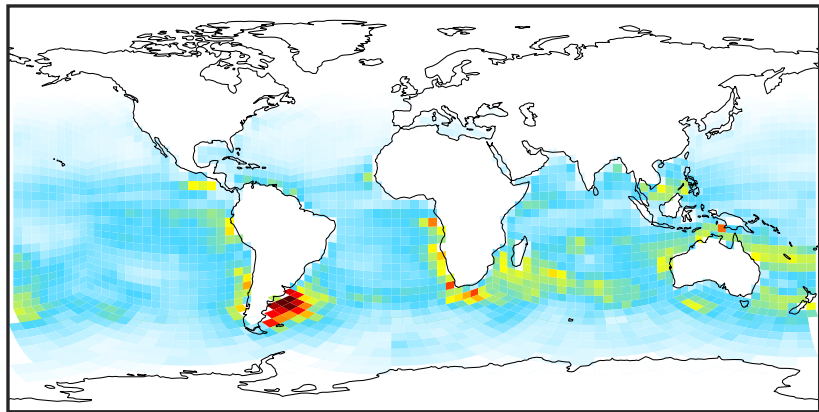
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

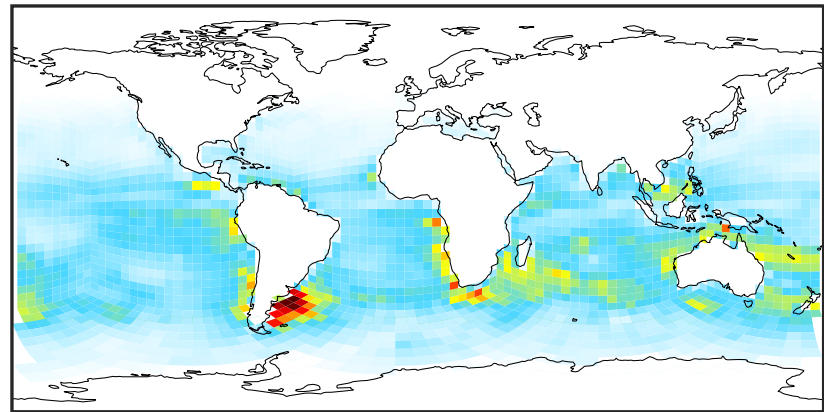
# EmisALD2\_Ocean (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



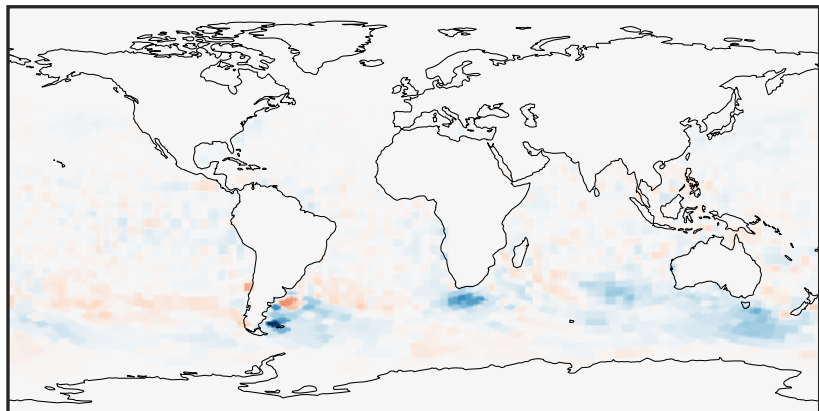
0.0 1.5 3.0  $10^{-11}$  kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



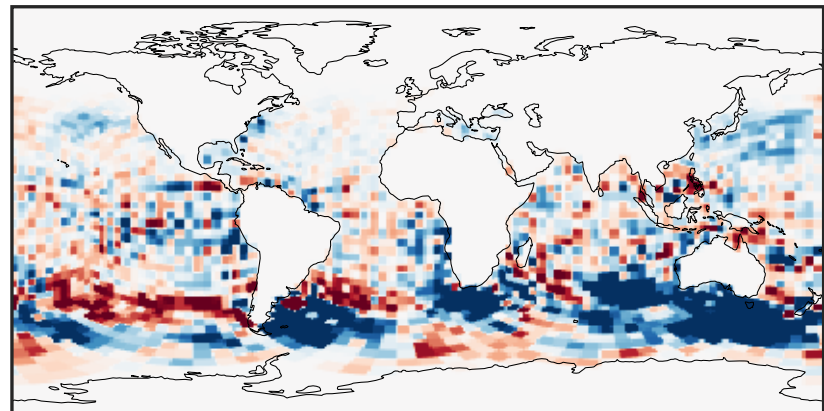
0.0 1.5 3.0  $10^{-11}$  kg/m<sup>2</sup>/s

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



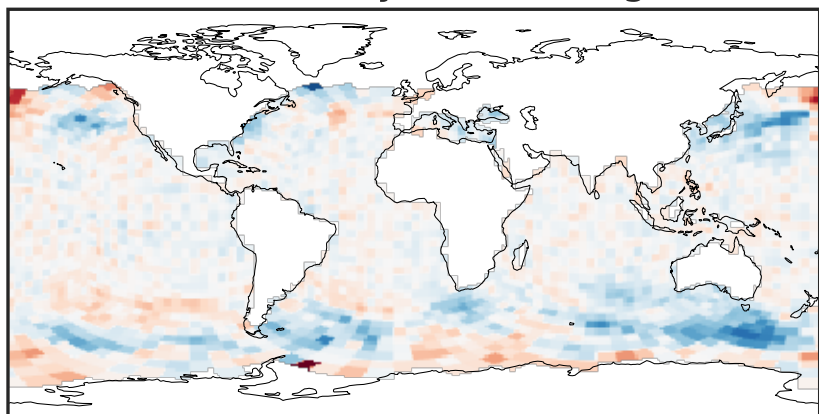
-8 0 8  $10^{-17}$  kg/m<sup>2</sup>/s

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



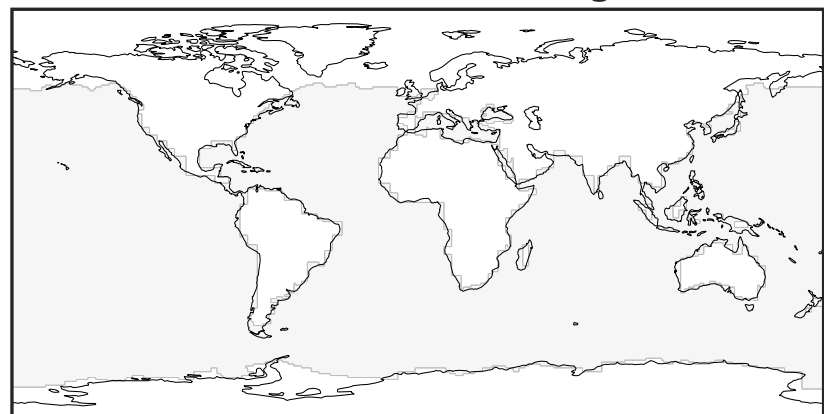
-8 0 8  $10^{-18}$  kg/m<sup>2</sup>/s

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



0.99999034 1.00000000 1.00000966 unitless

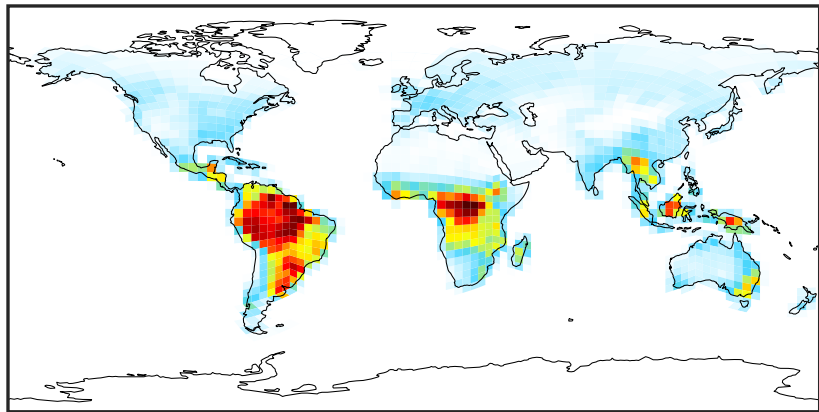
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00 unitless

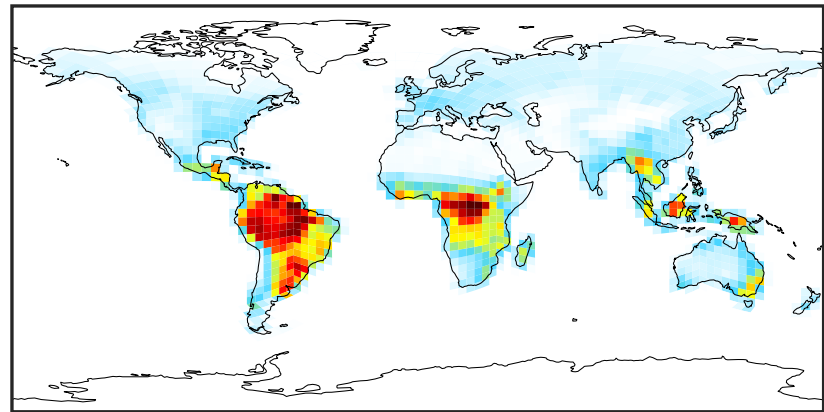
# EmisALD2\_PlantDecay (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



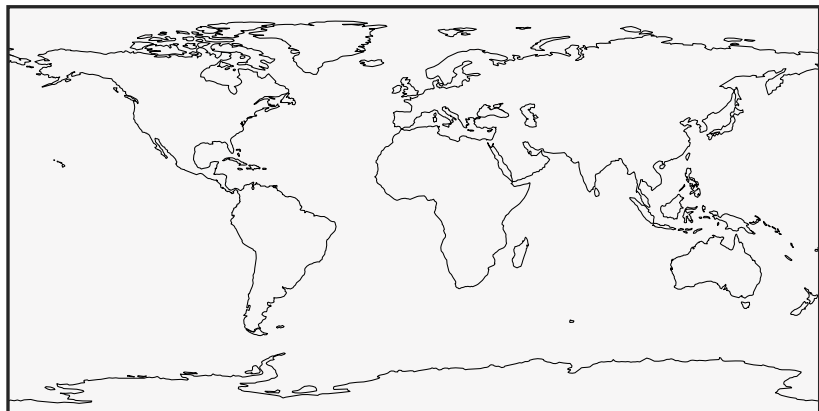
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-12

GCHP\_14.2.0 (Dev)  
c24



0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-12

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



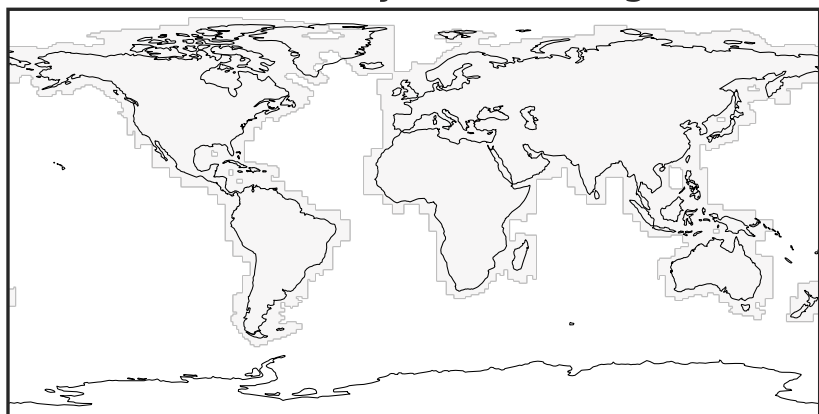
Zero throughout domain  
kg/m<sup>2</sup>/s

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



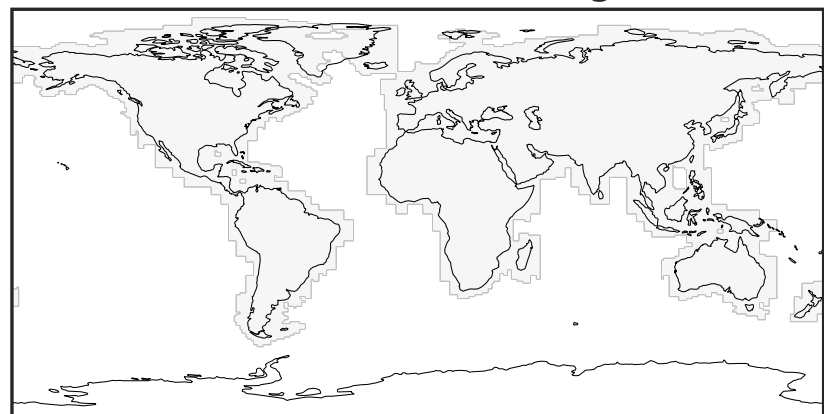
Zero throughout domain  
kg/m<sup>2</sup>/s

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



Ref and Dev equal throughout domain  
unitless

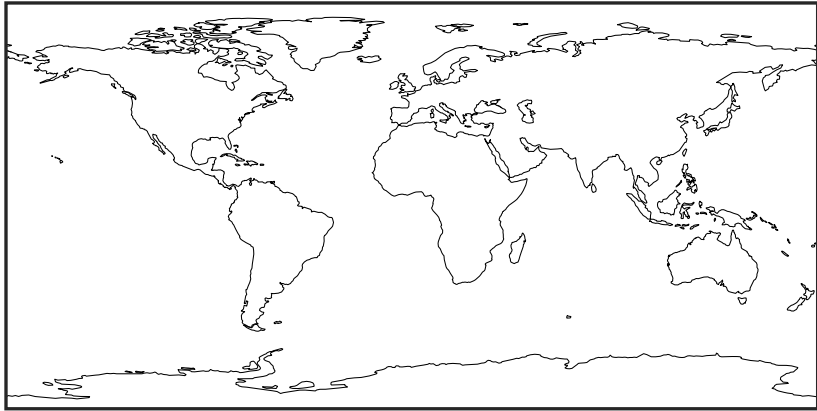
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Ref and Dev equal throughout domain  
unitless

# EmisALD2\_Ship (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



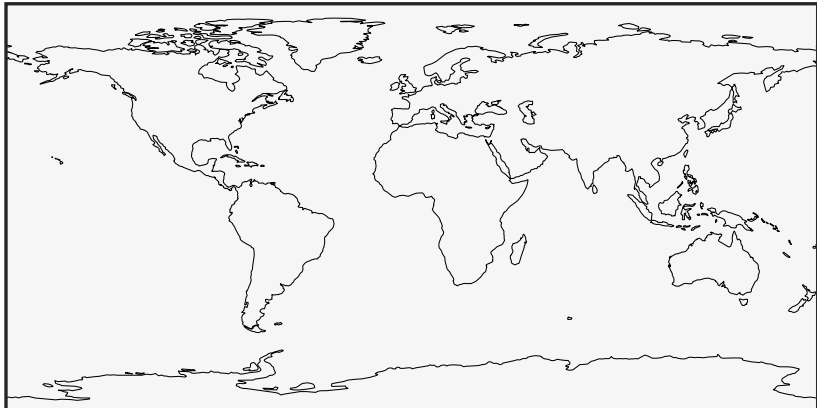
Zero throughput domain  
kg/m2/s

GCHP\_14.2.0 (Dev)  
c24



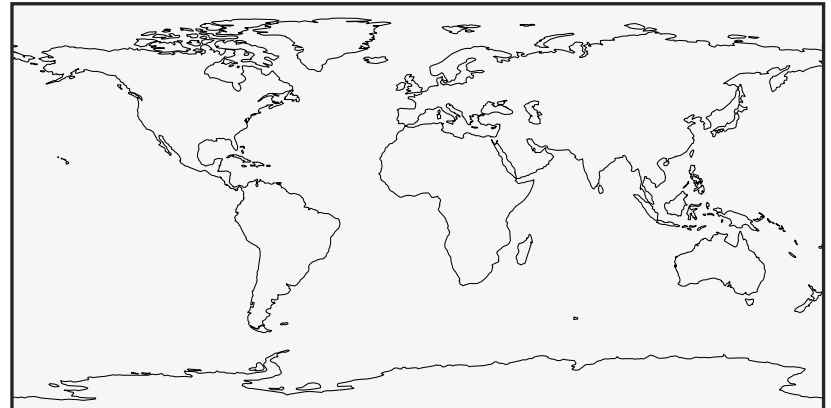
Zero throughput domain  
kg/m2/s

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



Zero throughput domain  
kg/m2/s

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



Zero throughput domain  
kg/m2/s

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



Undefined throughput domain  
unitless

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

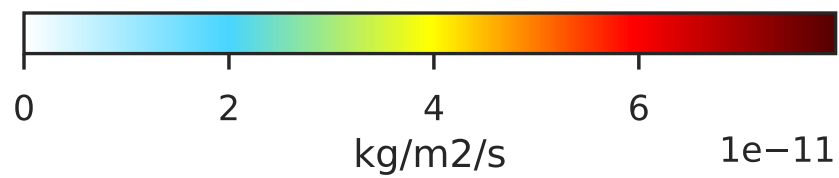
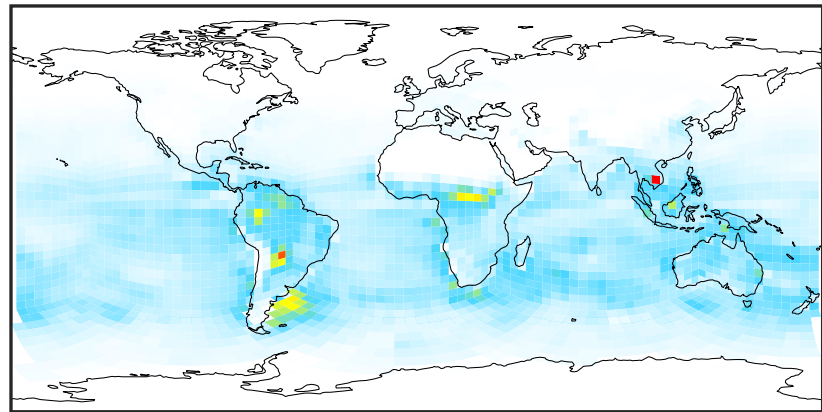


Undefined throughput domain  
unitless

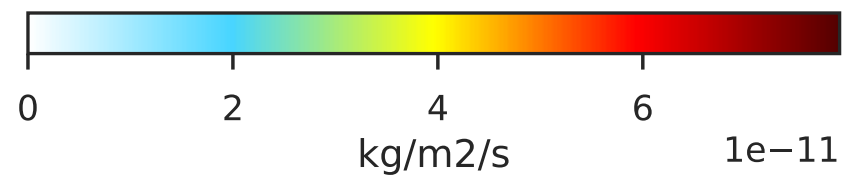
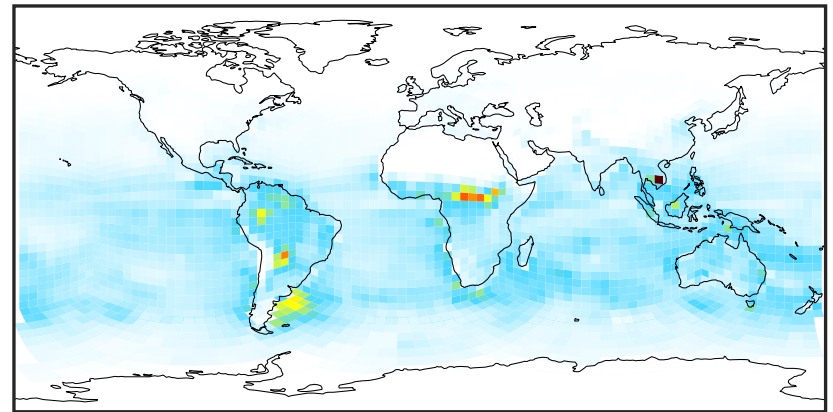


# EmisALD2\_Total (Jan2019)

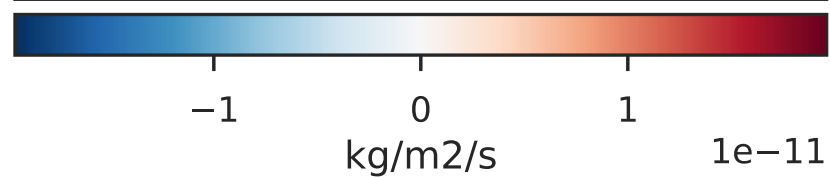
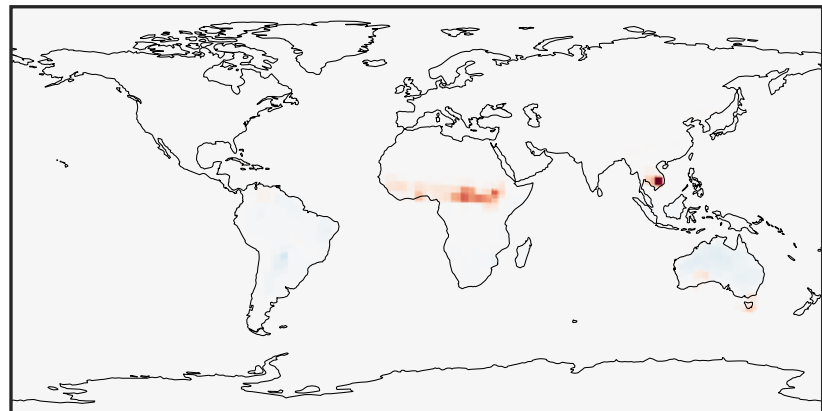
GCHP\_14.0.0 (Ref)  
c24



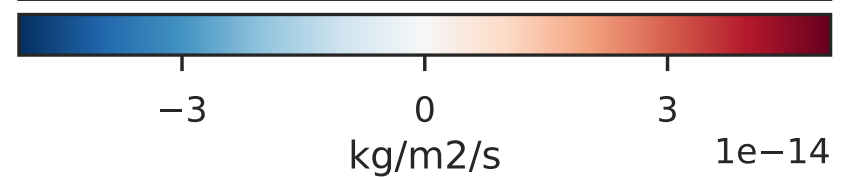
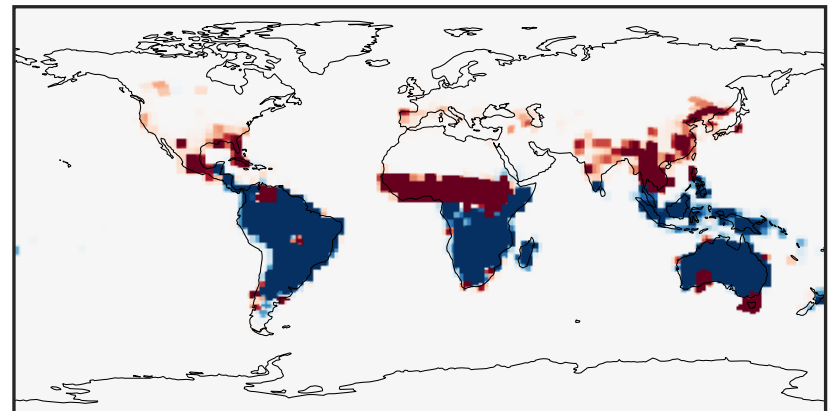
GCHP\_14.2.0 (Dev)  
c24



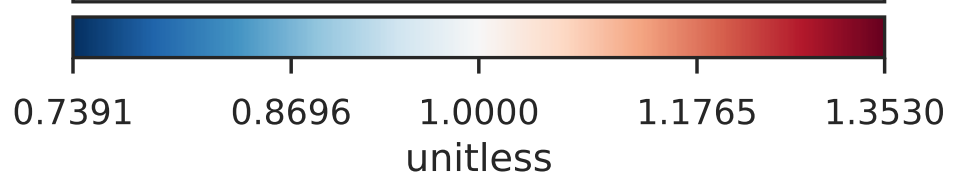
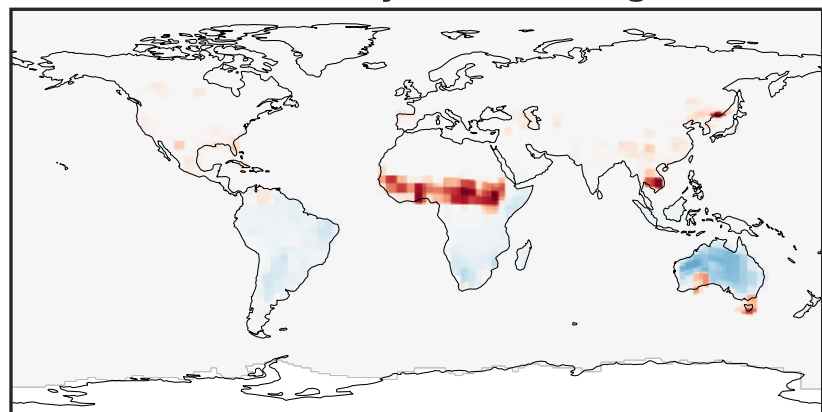
Difference (1x1.25)  
Dev - Ref, Dynamic Range



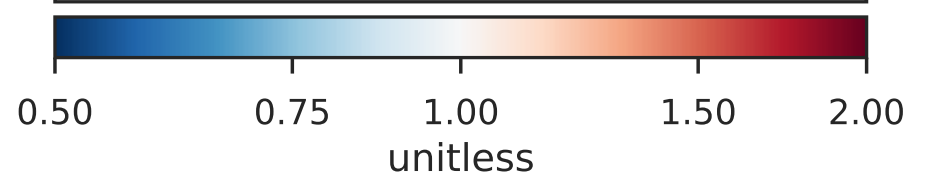
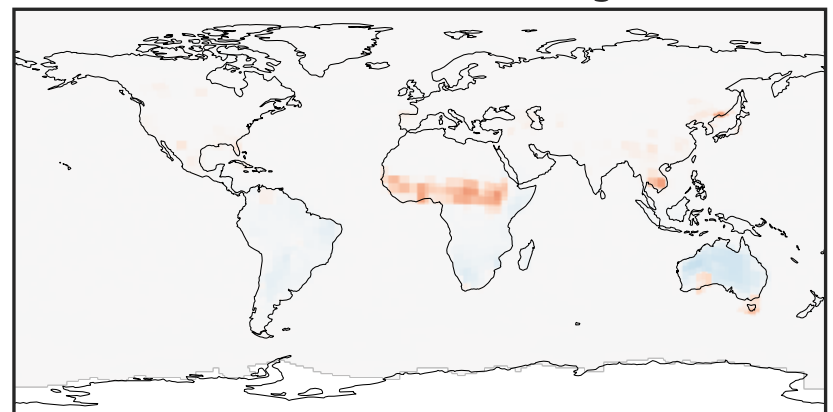
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

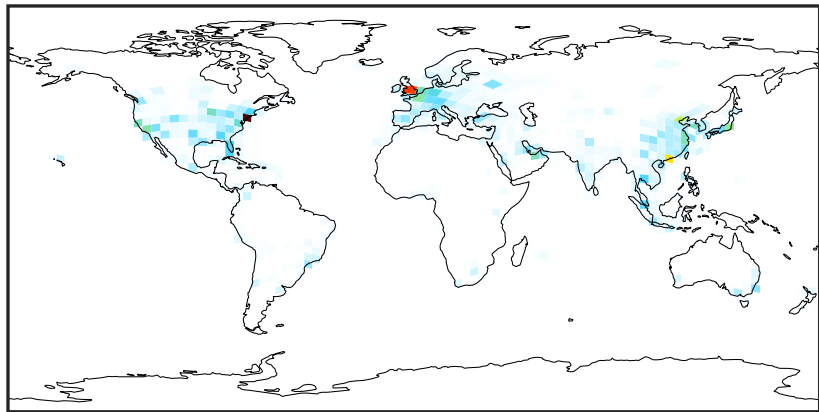


Ratio (1x1.25)  
Dev/Ref, Fixed Range



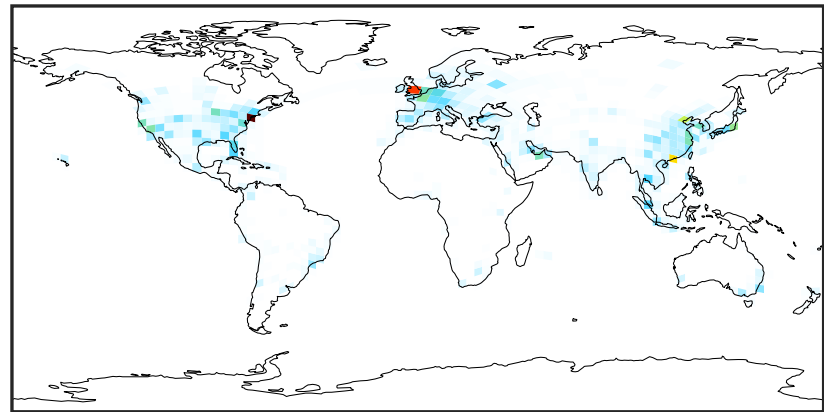
# EmisCH2O\_Aircraft (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



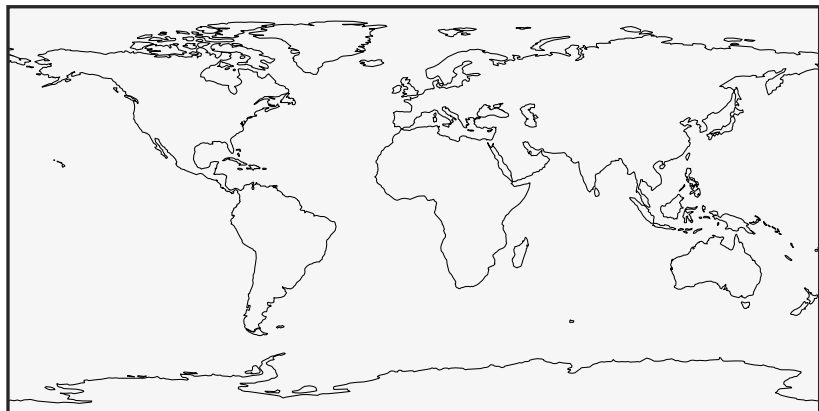
0.0 0.4 0.8 1.2  $1e-13$   
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



0.0 0.4 0.8 1.2  $1e-13$   
kg/m<sup>2</sup>/s

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



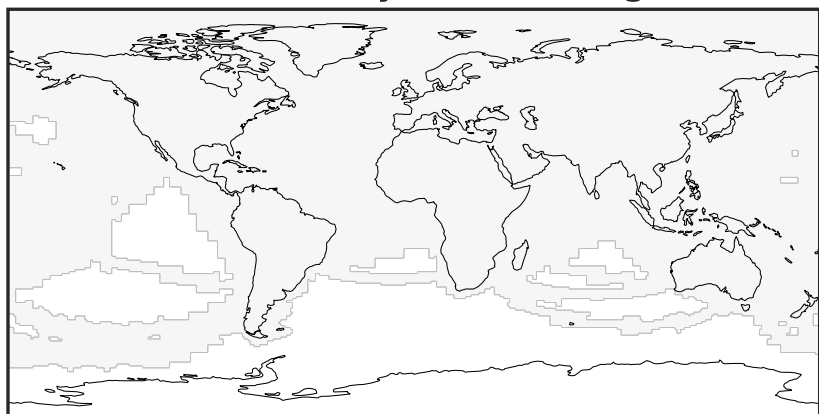
Zero throughout domain  
kg/m<sup>2</sup>/s

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



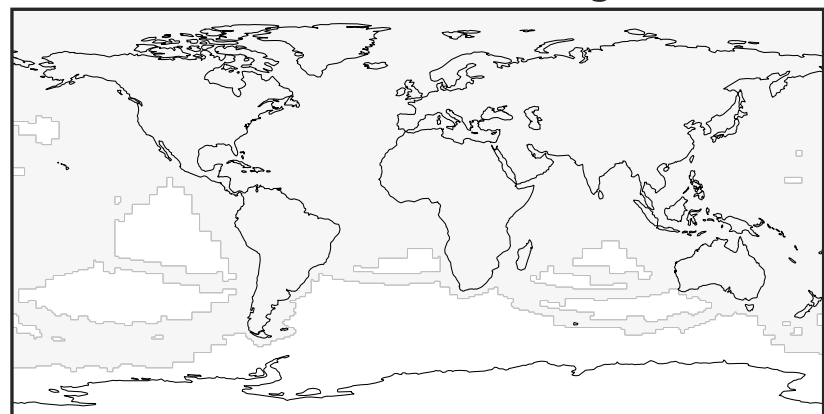
Zero throughout domain  
kg/m<sup>2</sup>/s

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



Ref and Dev equal throughout domain  
unitless

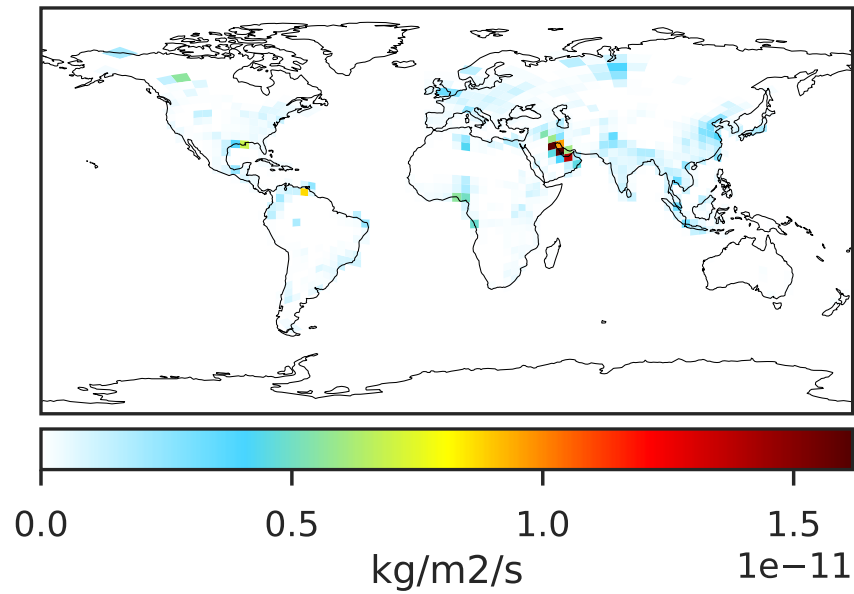
Ratio (1x1.25)  
Dev/Ref, Fixed Range



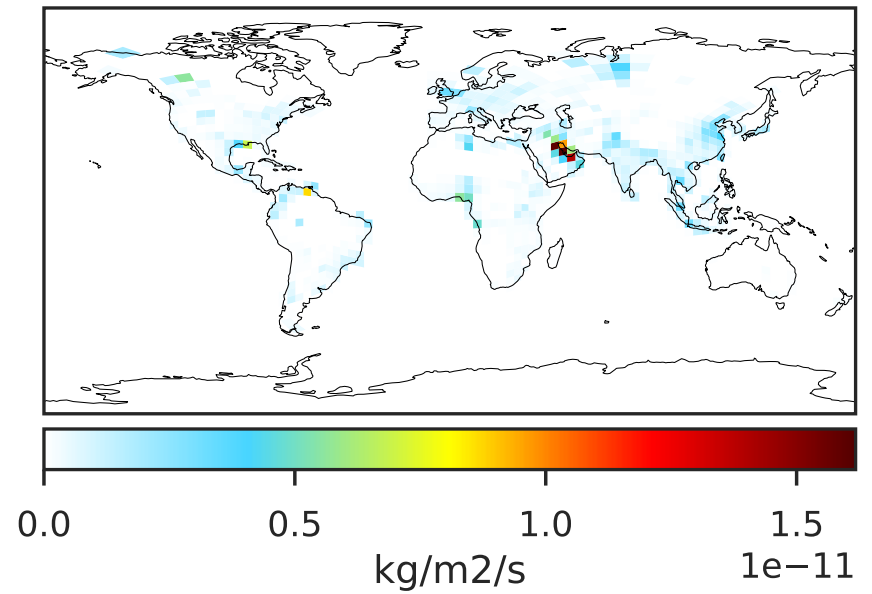
Ref and Dev equal throughout domain  
unitless

# EmisCH2O\_Anthro (Jan2019)

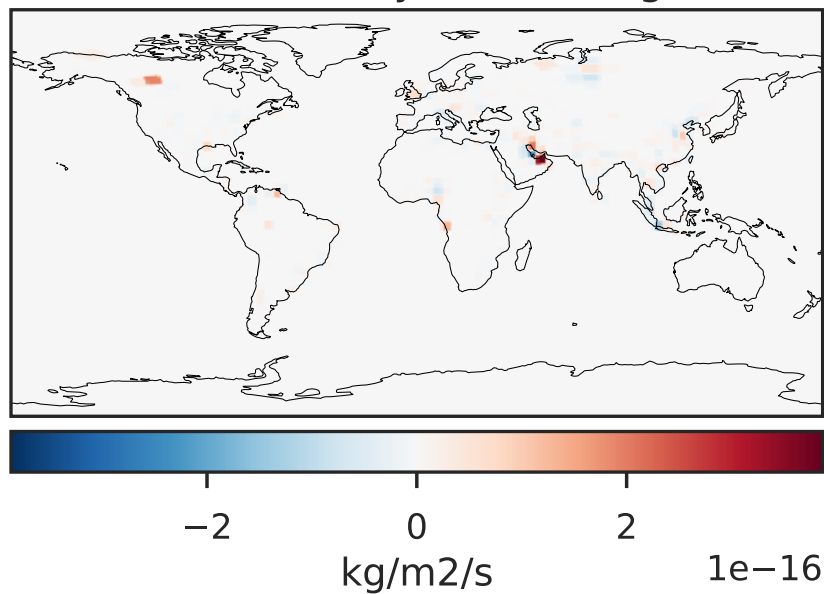
GCHP\_14.0.0 (Ref)  
c24



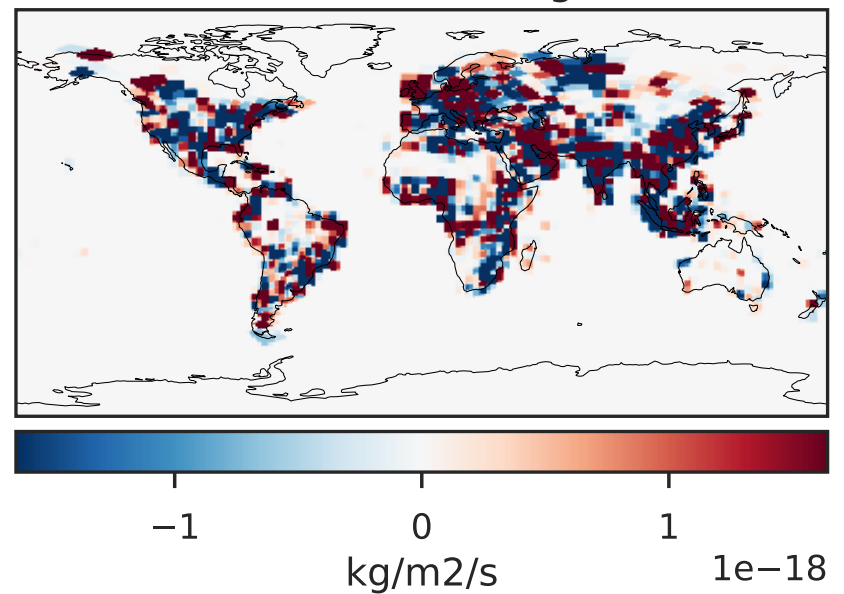
GCHP\_14.2.0 (Dev)  
c24



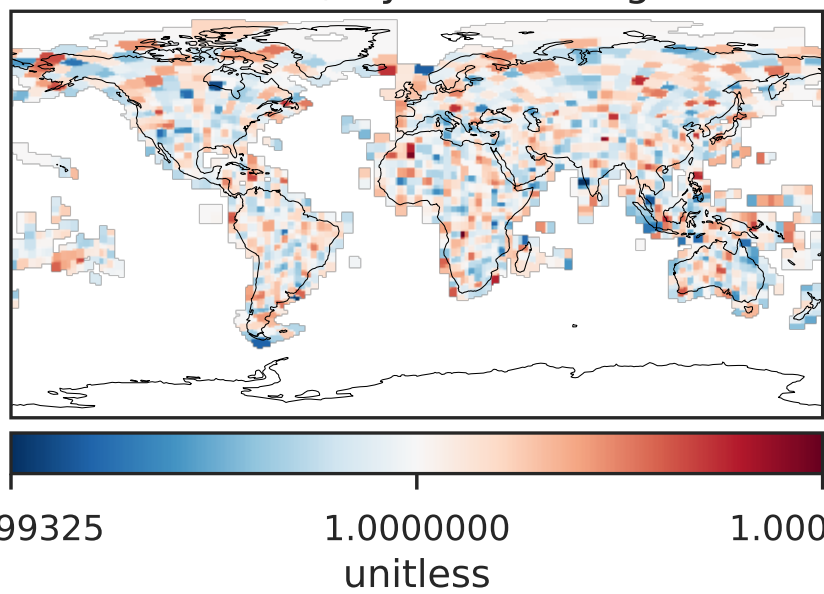
Difference (1x1.25)  
Dev - Ref, Dynamic Range



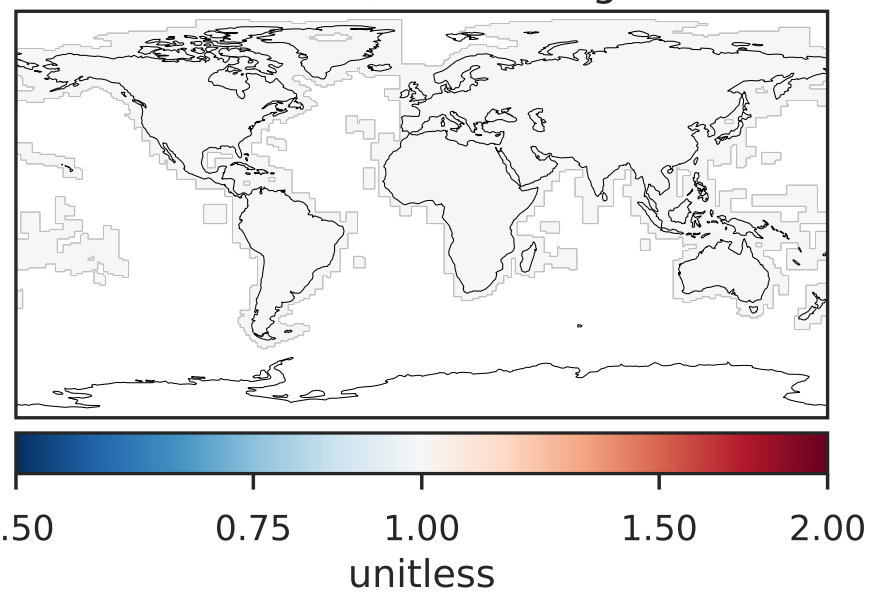
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

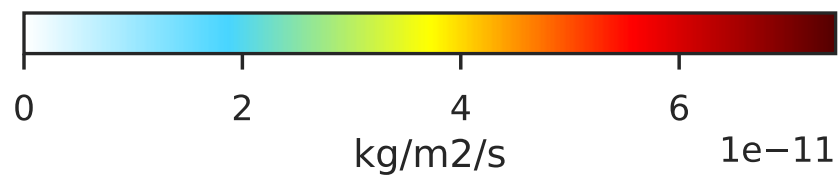
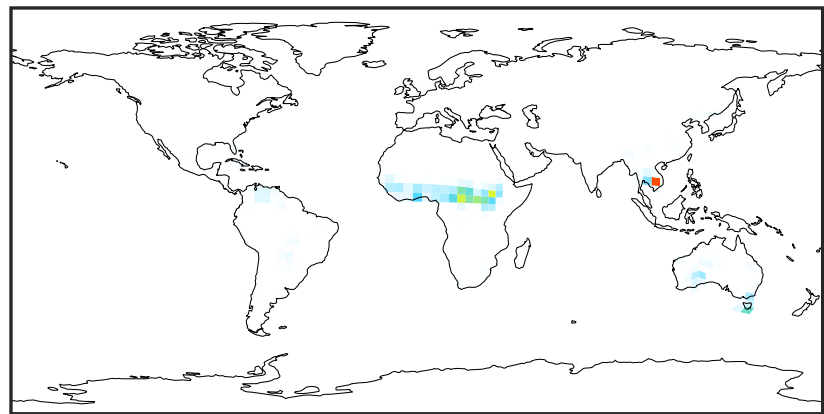


Ratio (1x1.25)  
Dev/Ref, Fixed Range

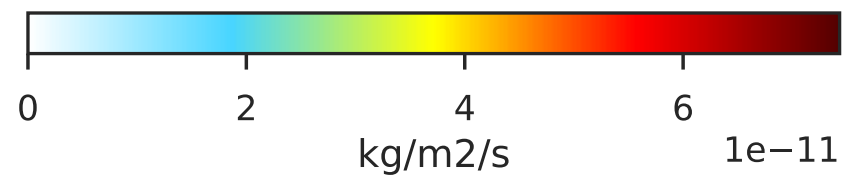
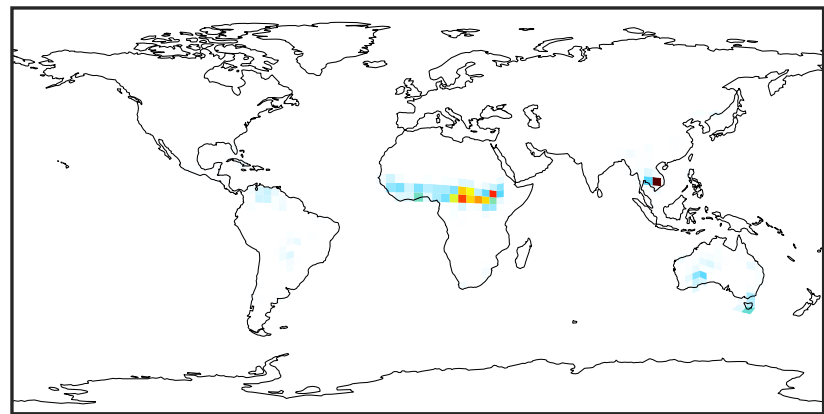


# EmisCH2O\_BioBurn (Jan2019)

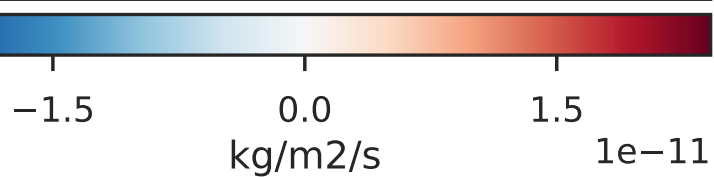
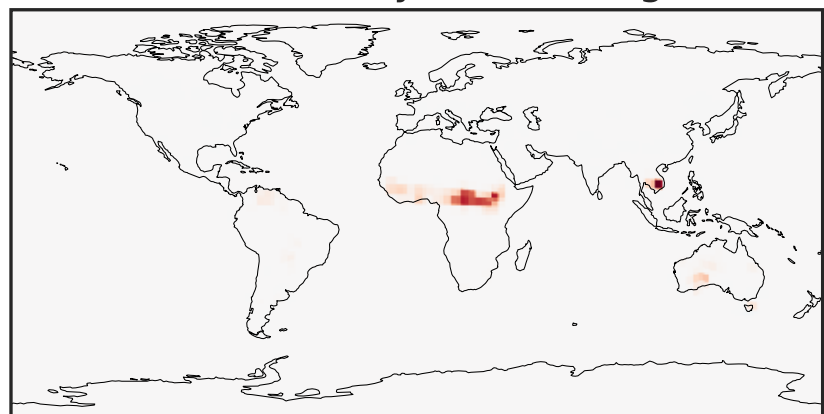
GCHP\_14.0.0 (Ref)  
c24



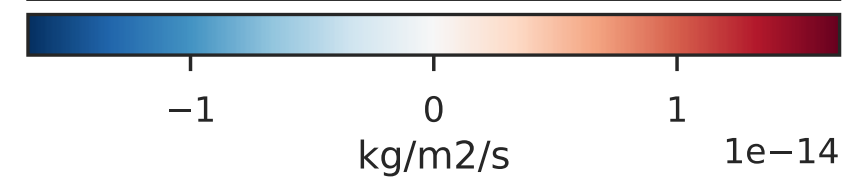
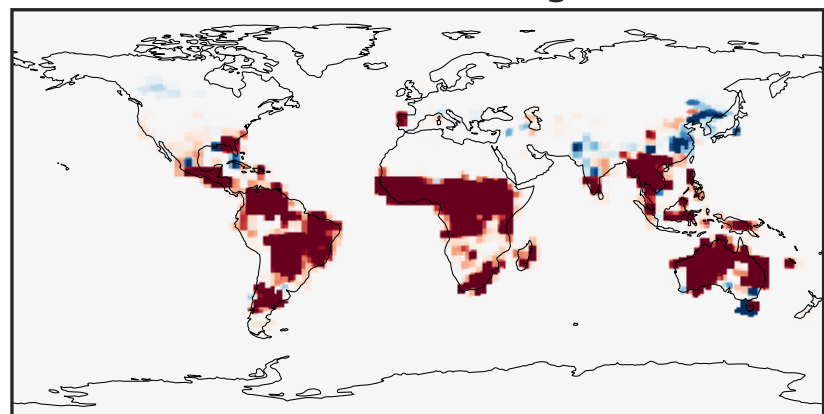
GCHP\_14.2.0 (Dev)  
c24



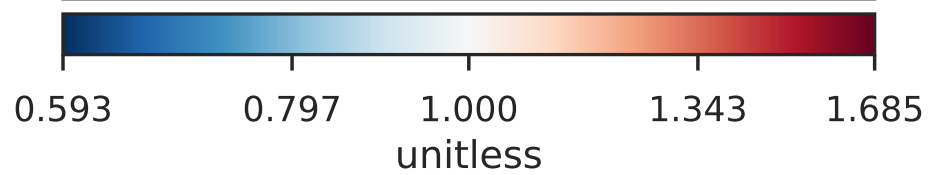
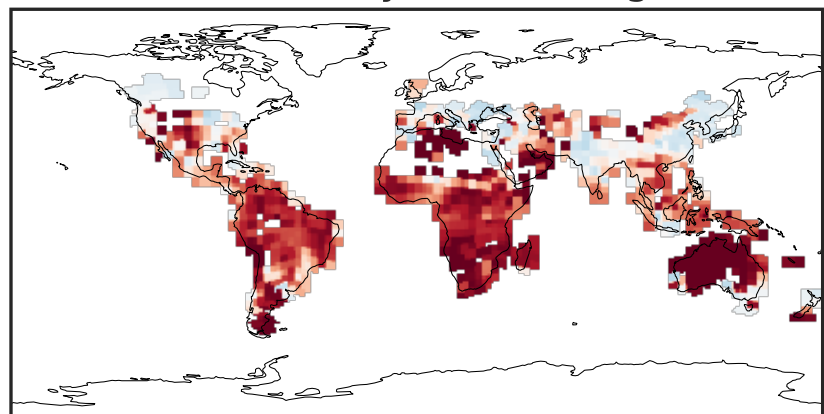
Difference (1x1.25)  
Dev - Ref, Dynamic Range



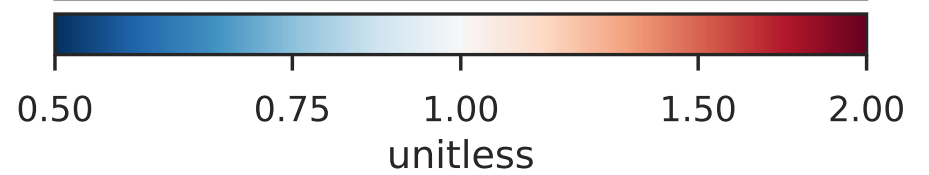
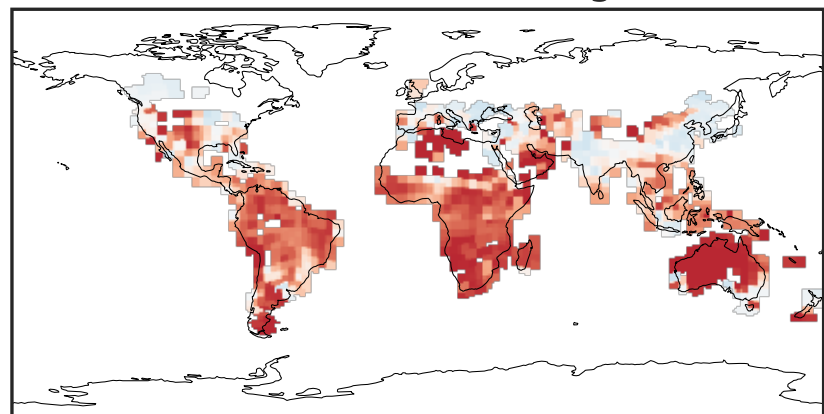
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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



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



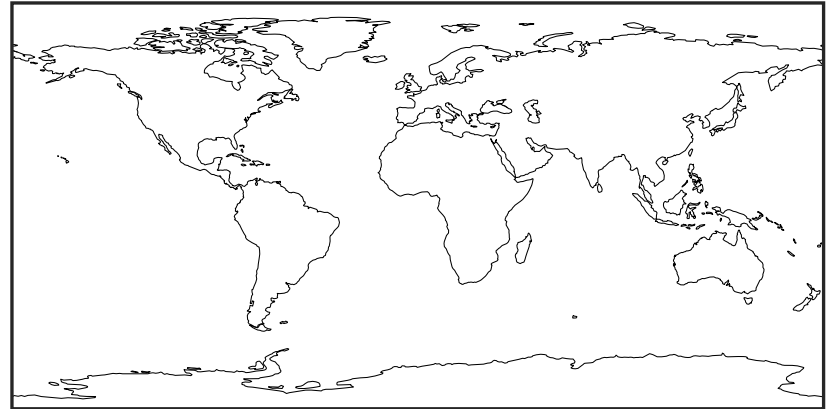
# EmisCH2O\_Ship (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



Zero throughout domain  
kg/m2/s

GCHP\_14.2.0 (Dev)  
c24



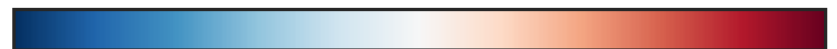
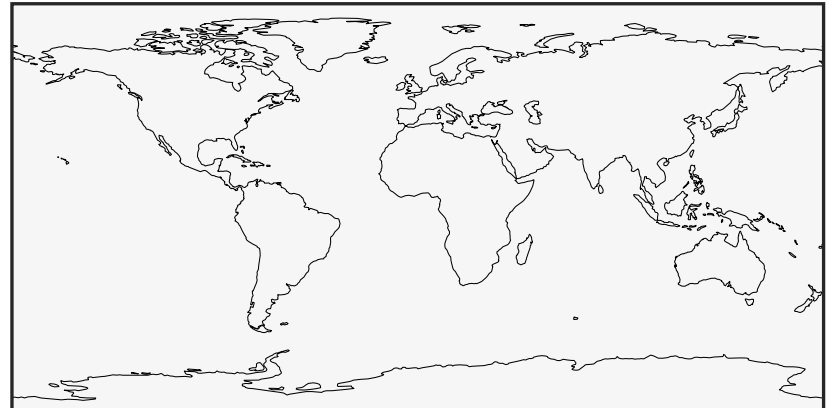
Zero throughout domain  
kg/m2/s

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



Zero throughout domain  
kg/m2/s

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



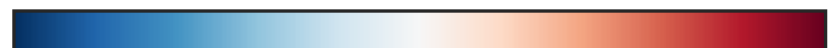
Zero throughout domain  
kg/m2/s

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



Undefined throughout domain  
unitless

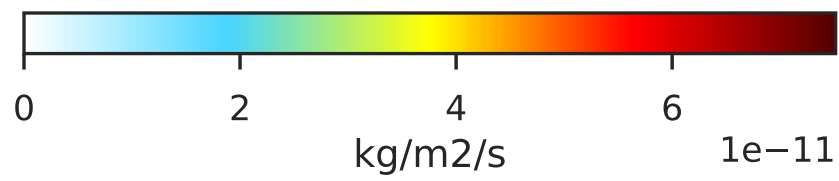
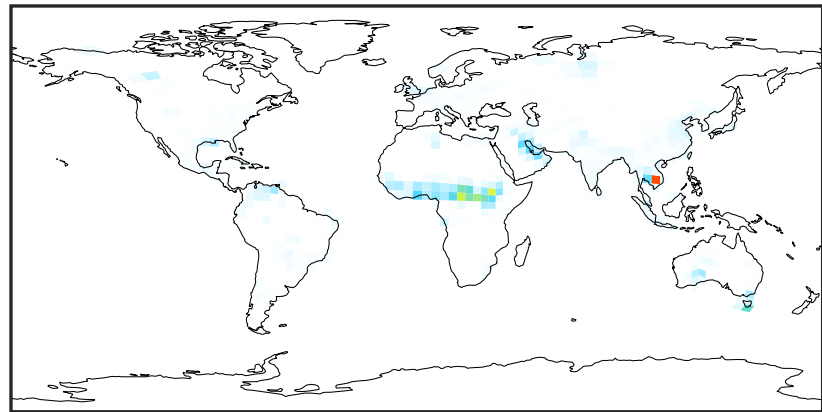
Ratio (1x1.25)  
Dev/Ref, Fixed Range



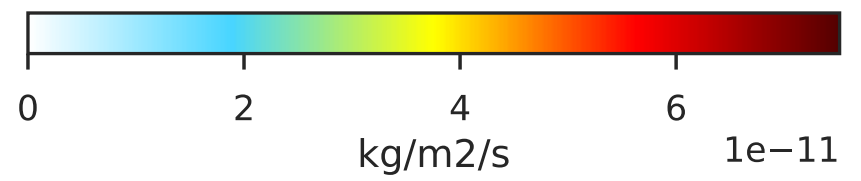
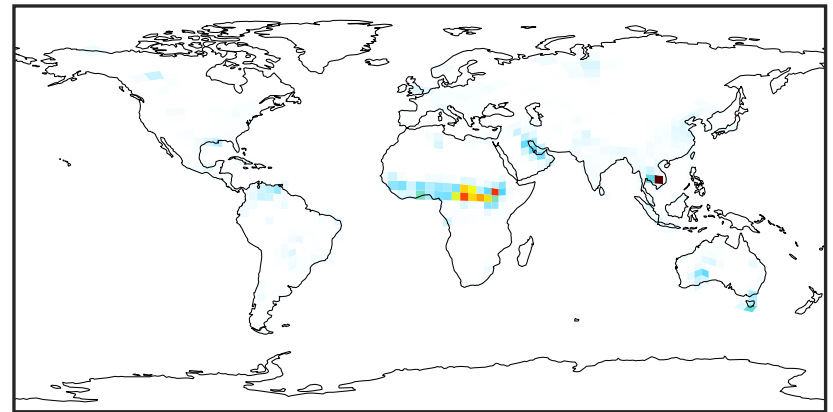
Undefined throughout domain  
unitless

# EmisCH2O\_Total (Jan2019)

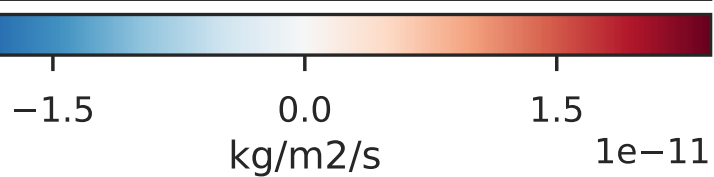
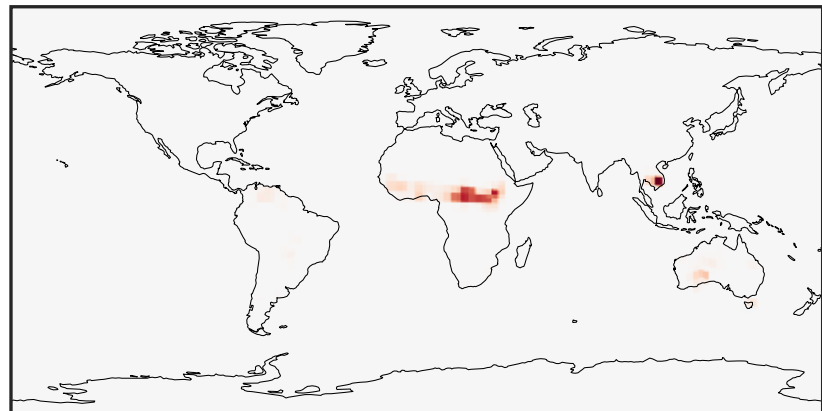
GCHP\_14.0.0 (Ref)  
c24



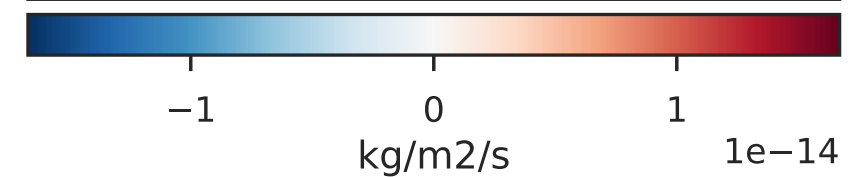
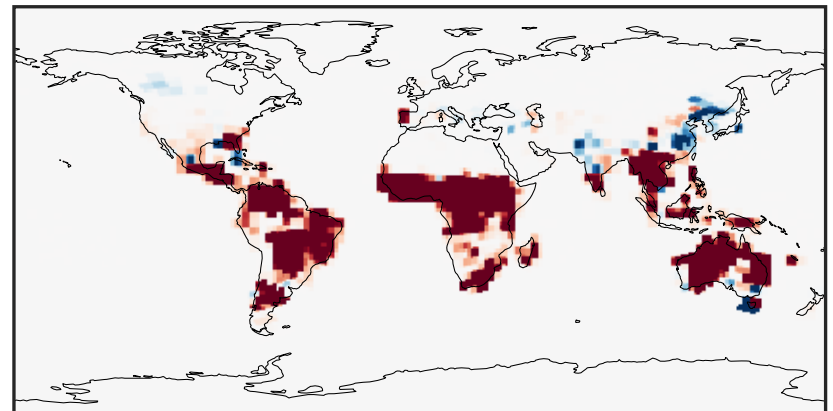
GCHP\_14.2.0 (Dev)  
c24



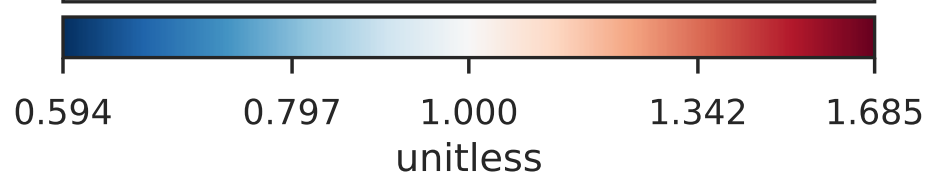
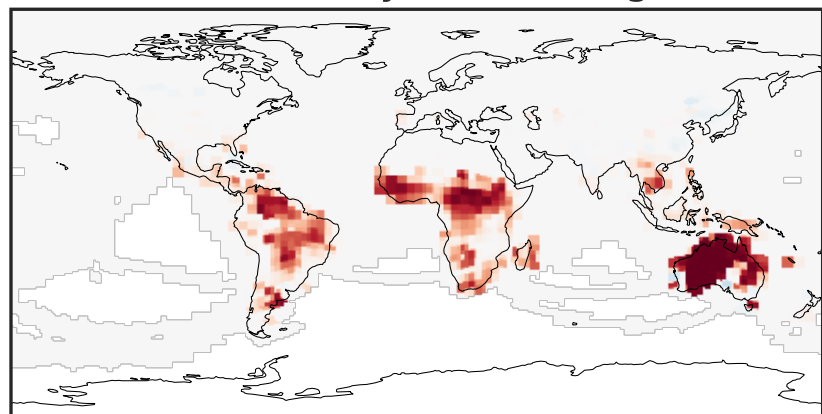
Difference (1x1.25)  
Dev - Ref, Dynamic Range



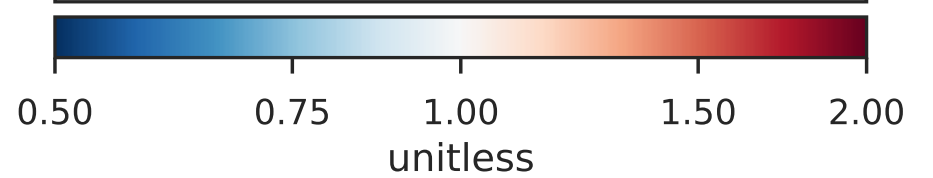
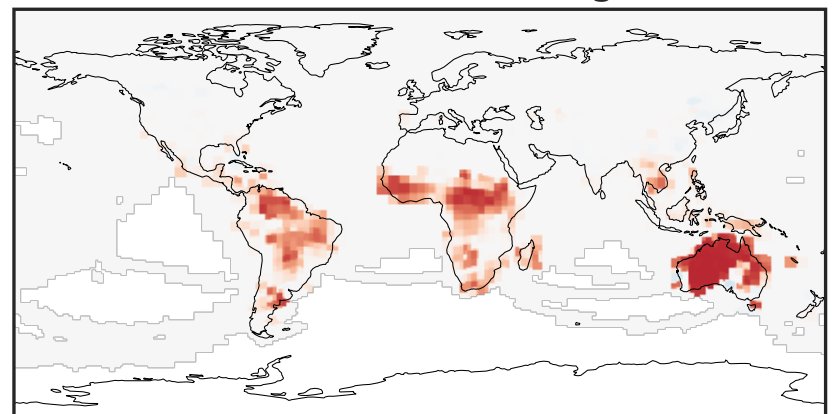
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

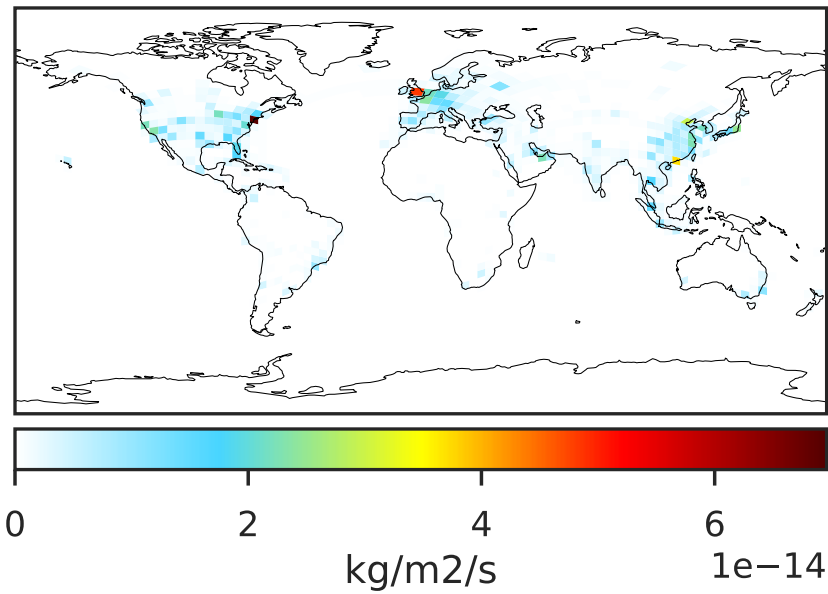


Ratio (1x1.25)  
Dev/Ref, Fixed Range

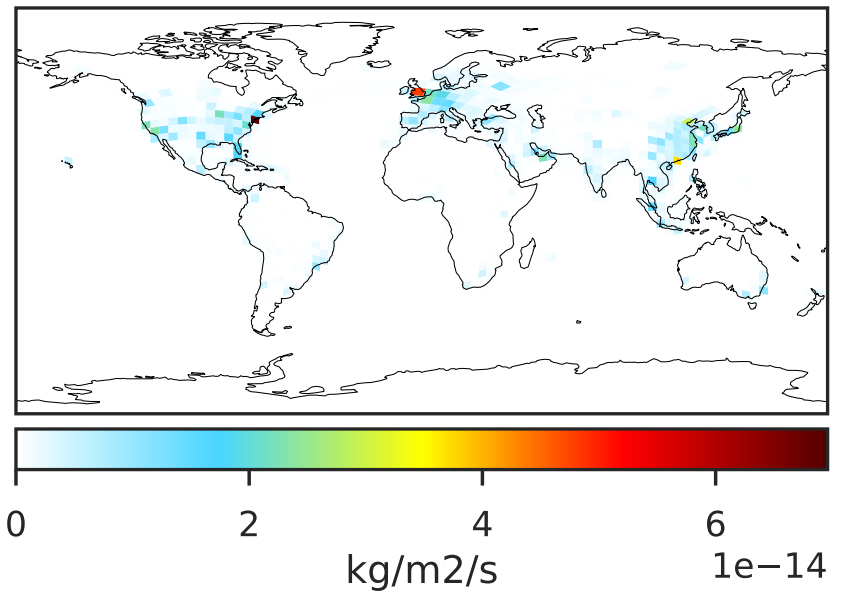


# EmisMACR\_Aircraft (Jan2019)

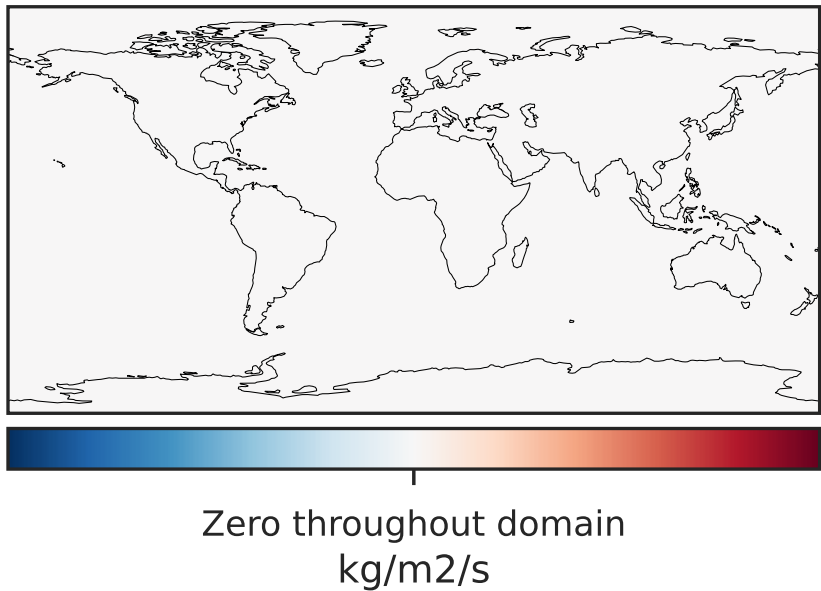
GCHP\_14.0.0 (Ref)  
c24



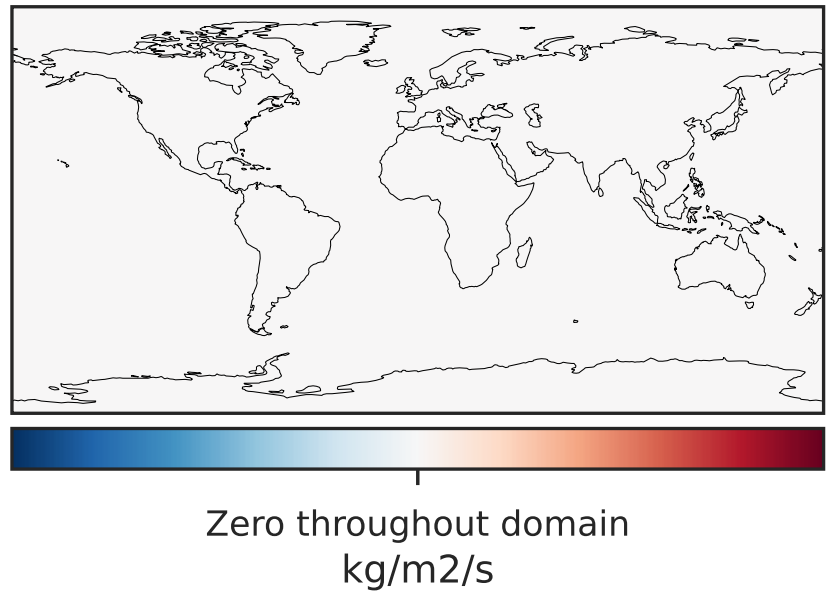
GCHP\_14.2.0 (Dev)  
c24



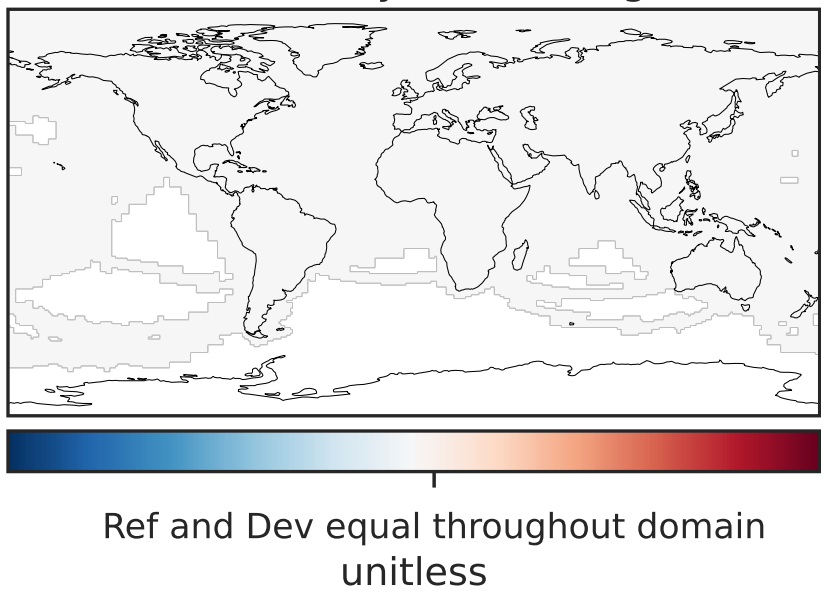
Difference (1x1.25)  
Dev - Ref, Dynamic Range



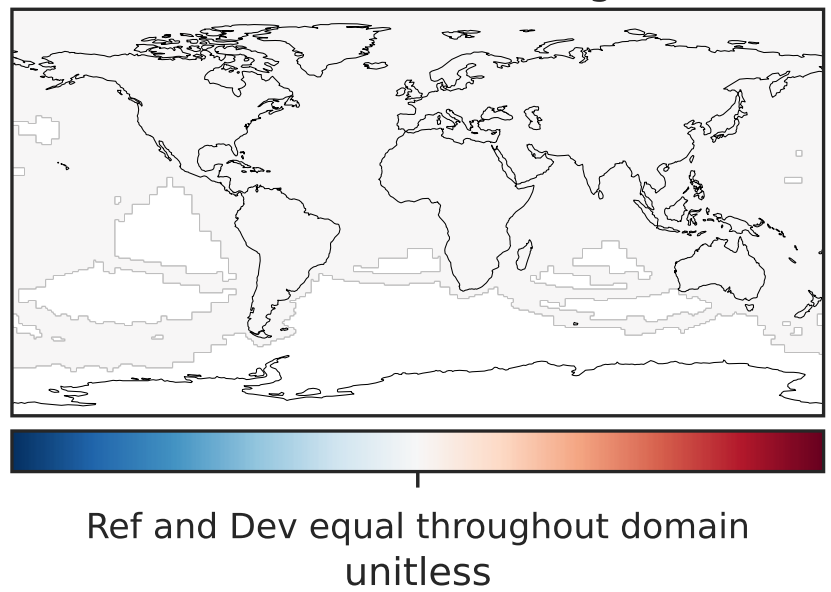
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

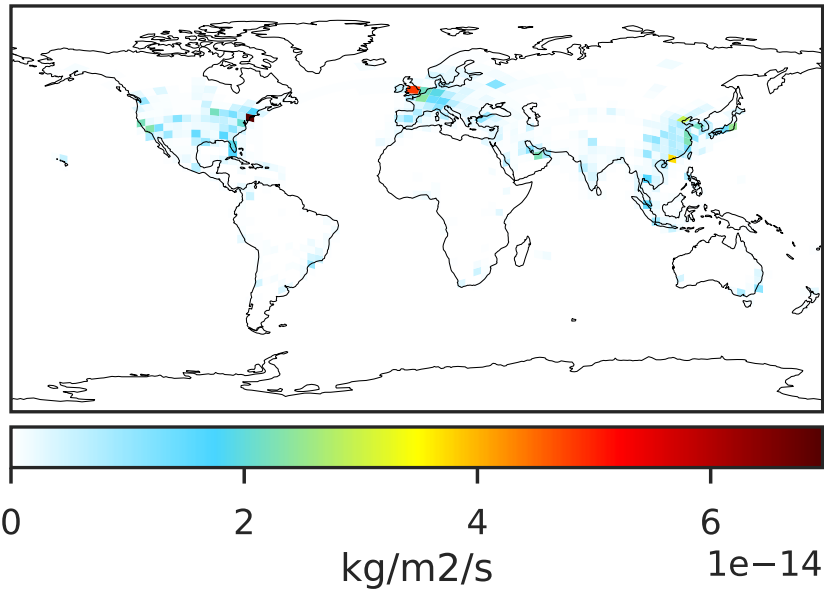


Ratio (1x1.25)  
Dev/Ref, Fixed Range

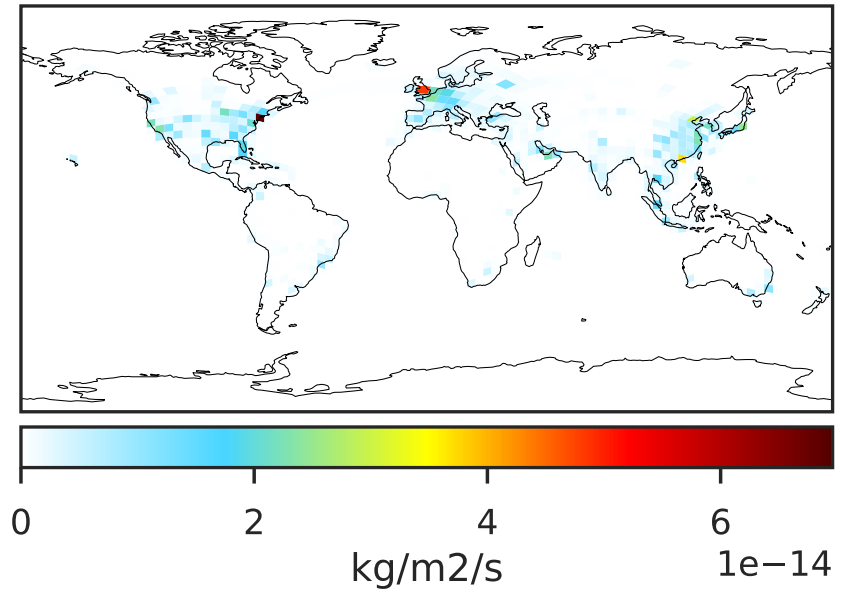


# EmisMACR\_Total (Jan2019)

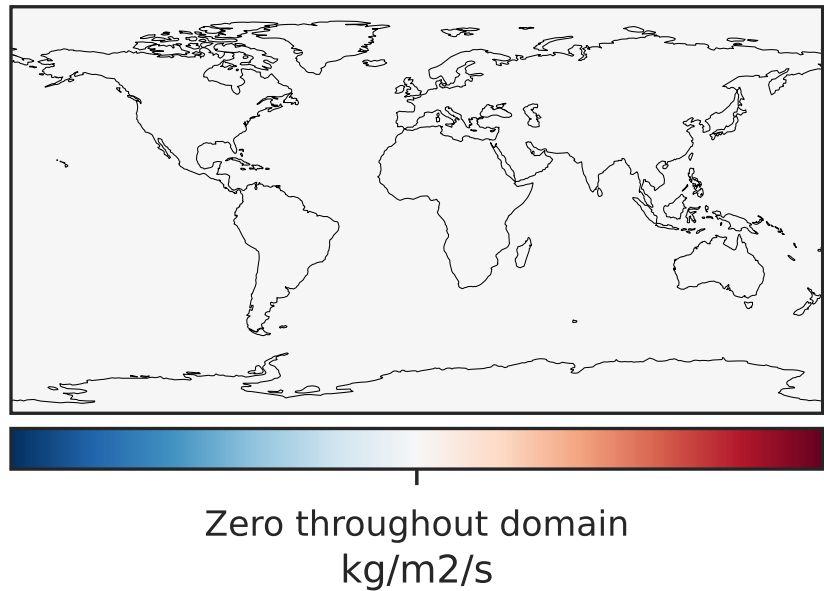
GCHP\_14.0.0 (Ref)  
c24



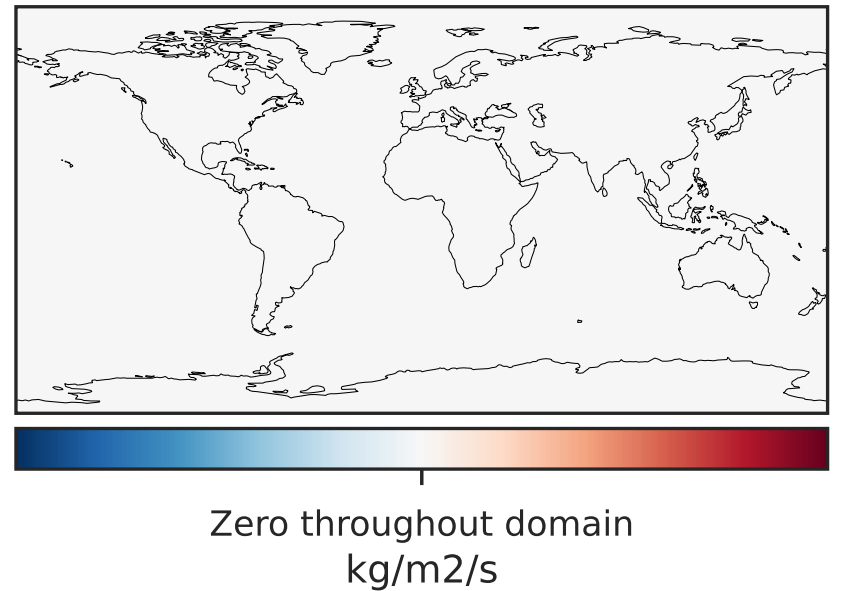
GCHP\_14.2.0 (Dev)  
c24



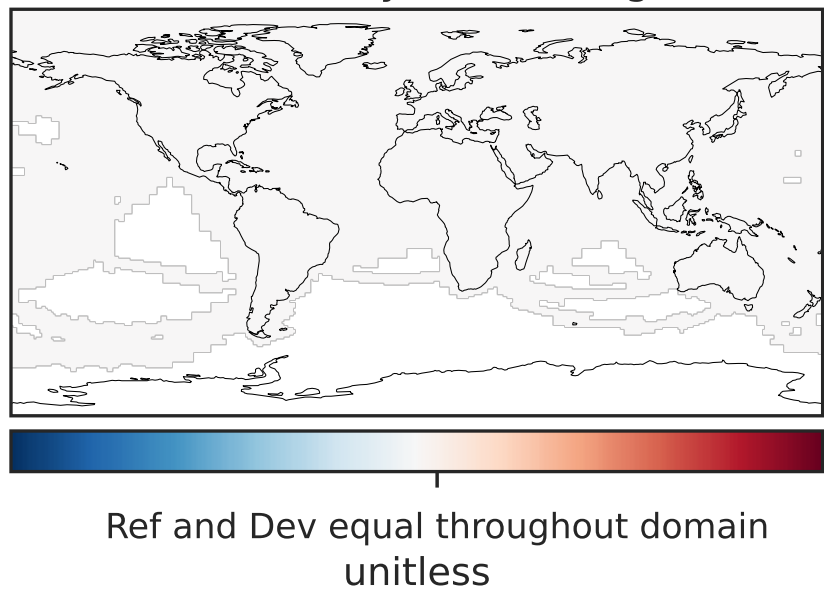
Difference (1x1.25)  
Dev - Ref, Dynamic Range



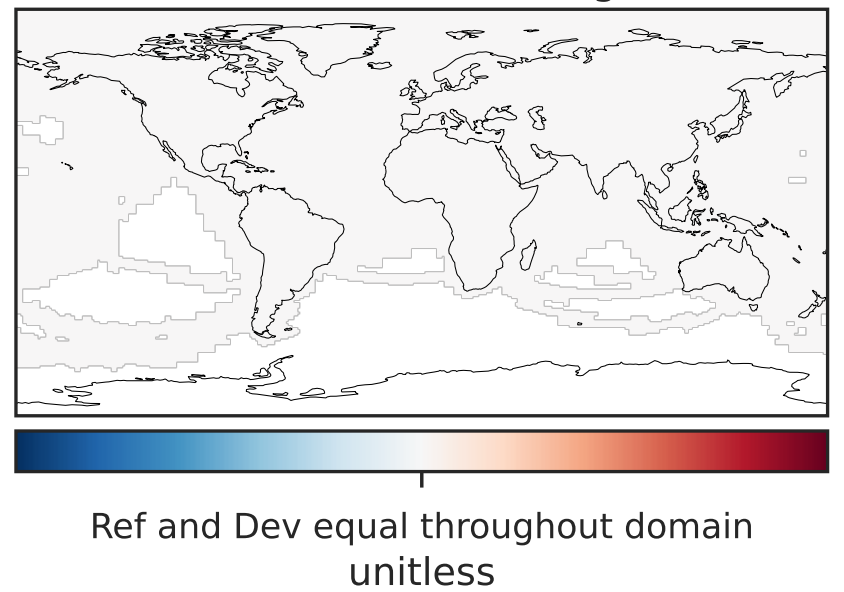
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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



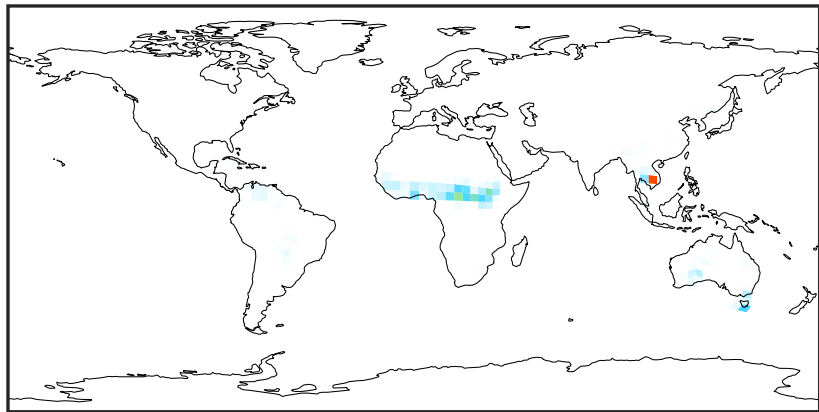
Ratio (1x1.25)  
Dev/Ref, Fixed Range





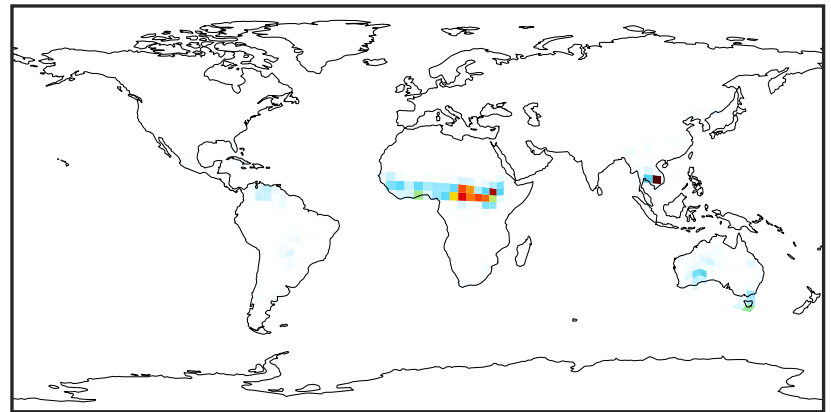
# EmisACET\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



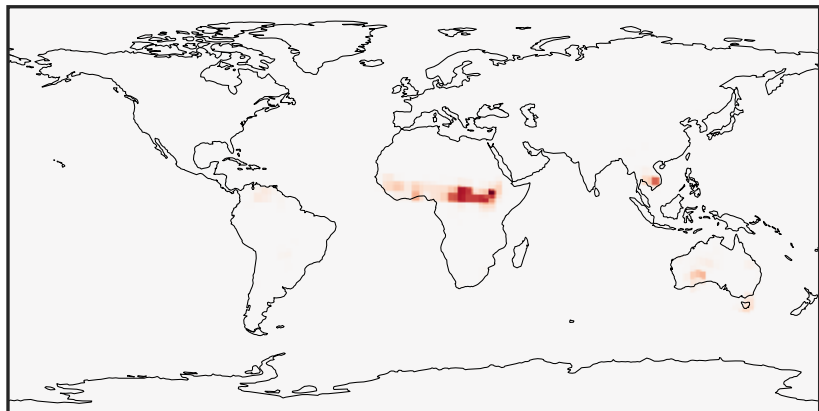
0.0 0.6 1.2 1.8  $10^{-11}$  kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



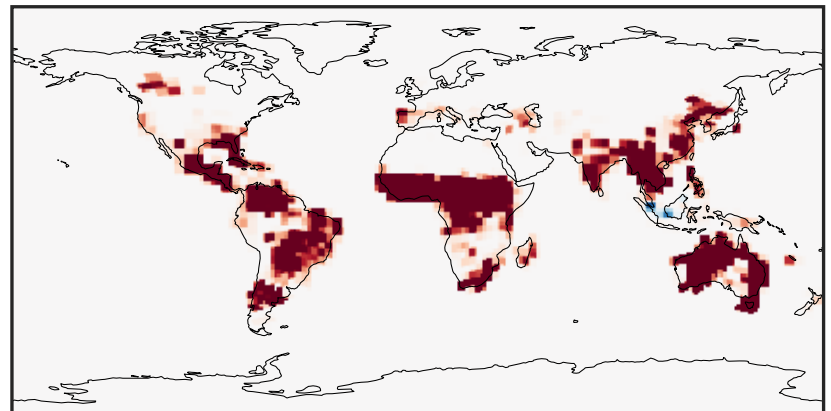
0.0 0.6 1.2 1.8  $10^{-11}$  kg/m<sup>2</sup>/s

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



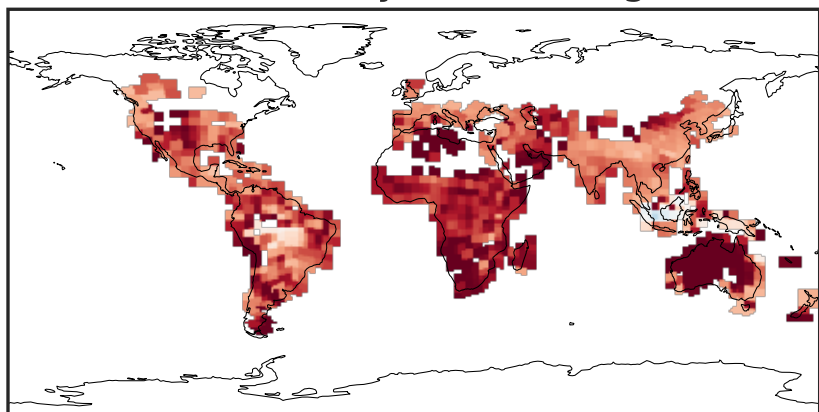
-8 0 8  $10^{-12}$  kg/m<sup>2</sup>/s

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



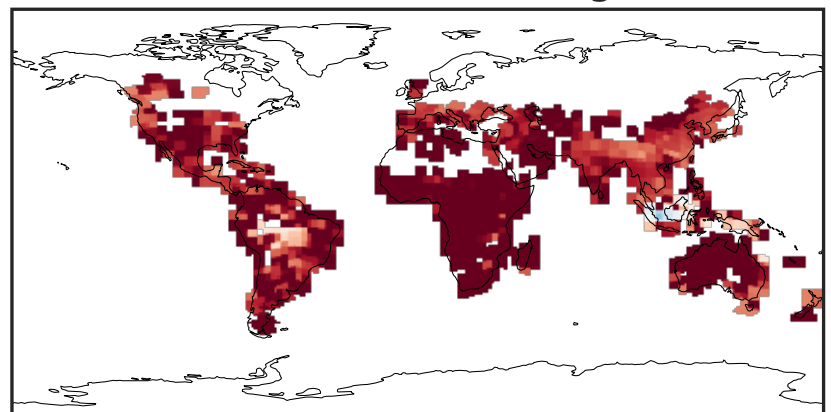
-1 0 1  $10^{-14}$  kg/m<sup>2</sup>/s

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



0.340 0.670 1.000 1.969 2.938 unitless

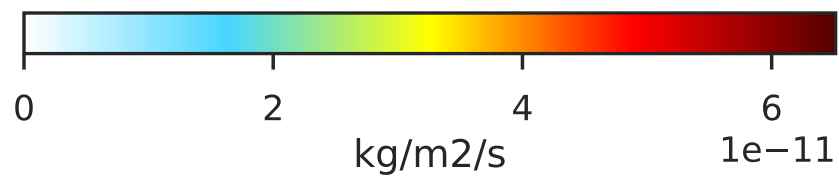
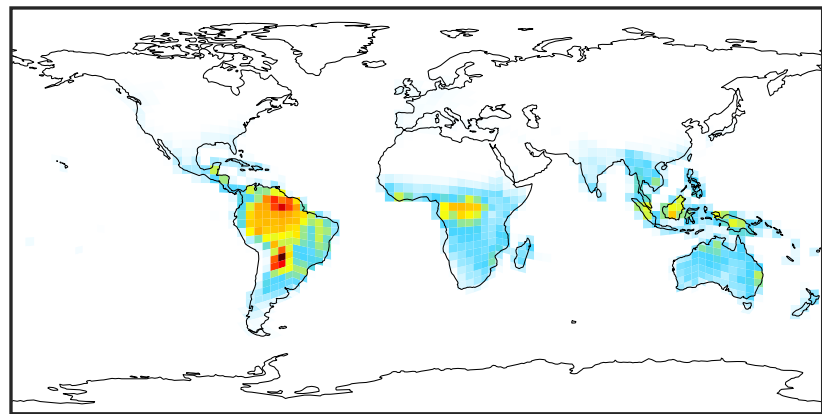
Ratio (1x1.25)  
Dev/Ref, Fixed Range



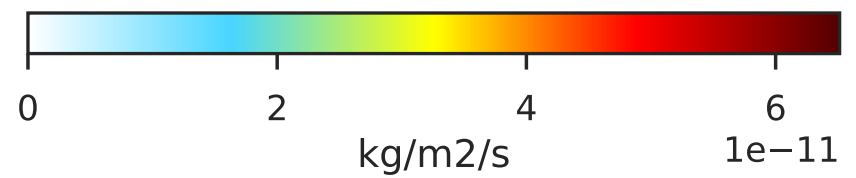
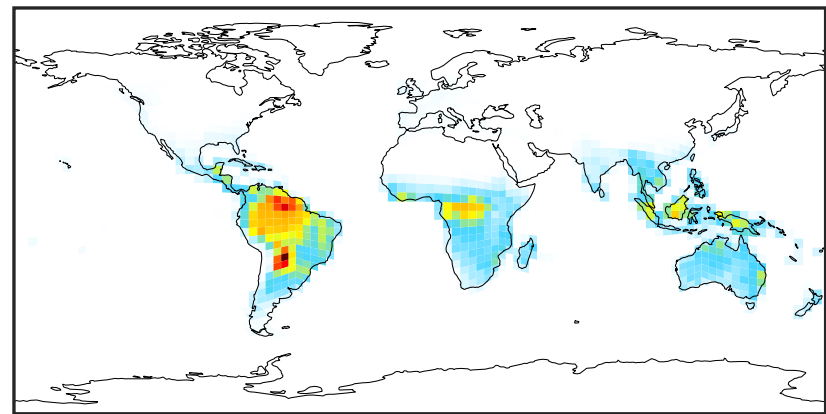
0.50 0.75 1.00 1.50 2.00 unitless

# EmisACET\_Biogenic (Jan2019)

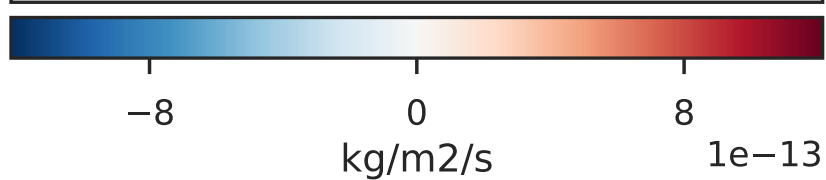
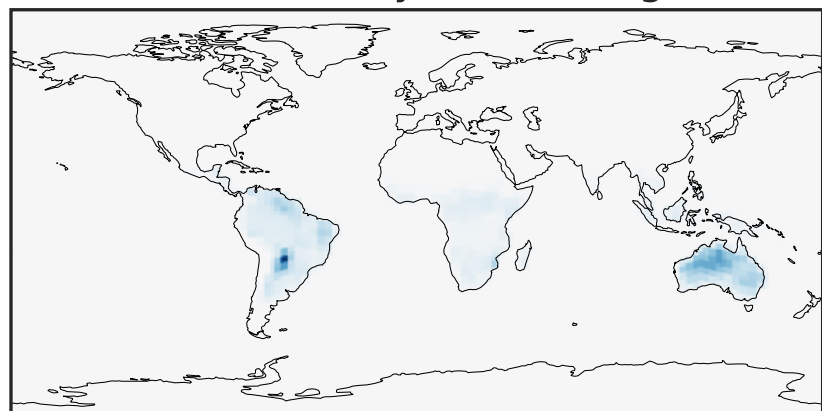
GCHP\_14.0.0 (Ref)  
c24



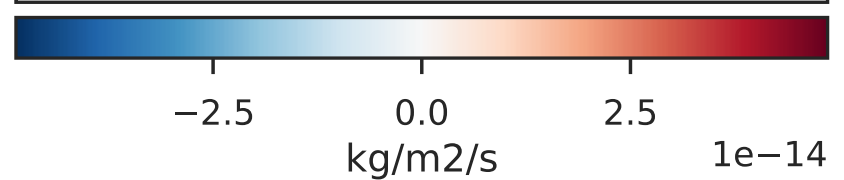
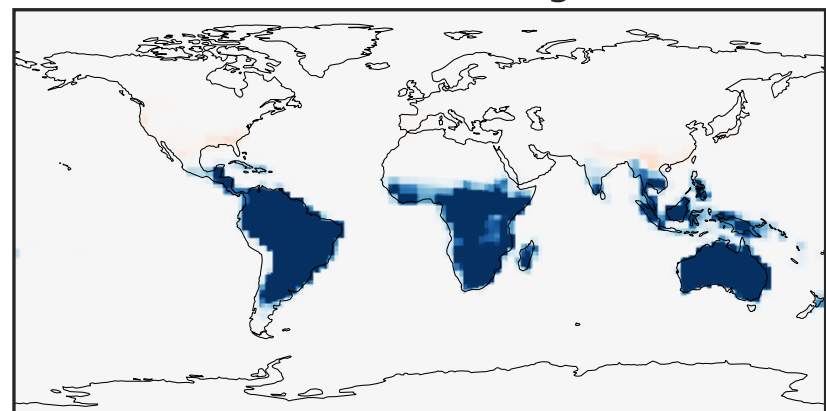
GCHP\_14.2.0 (Dev)  
c24



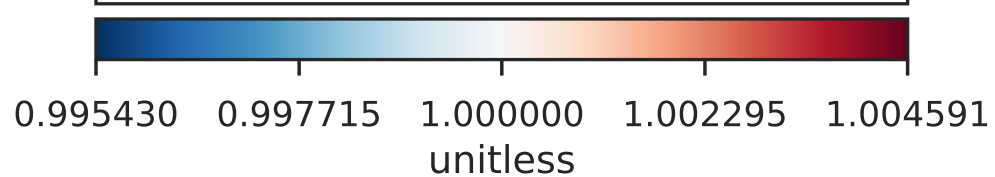
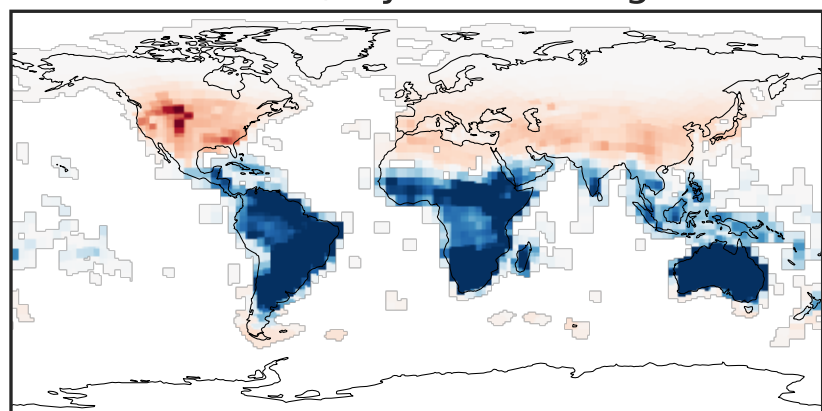
Difference (1x1.25)  
Dev - Ref, Dynamic Range



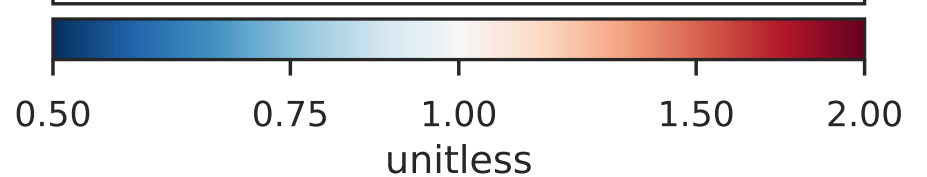
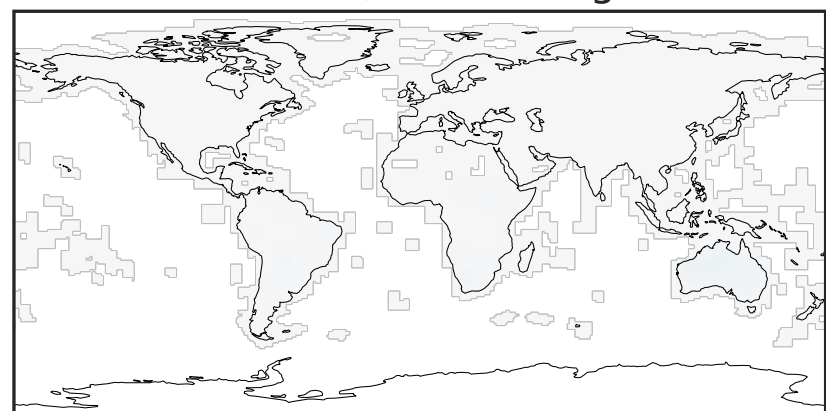
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

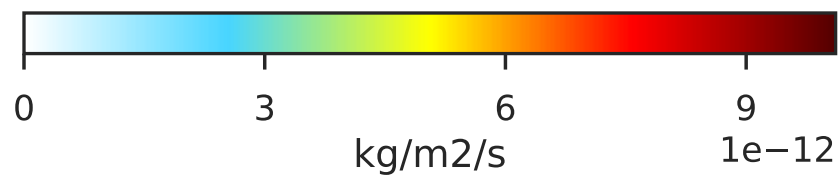
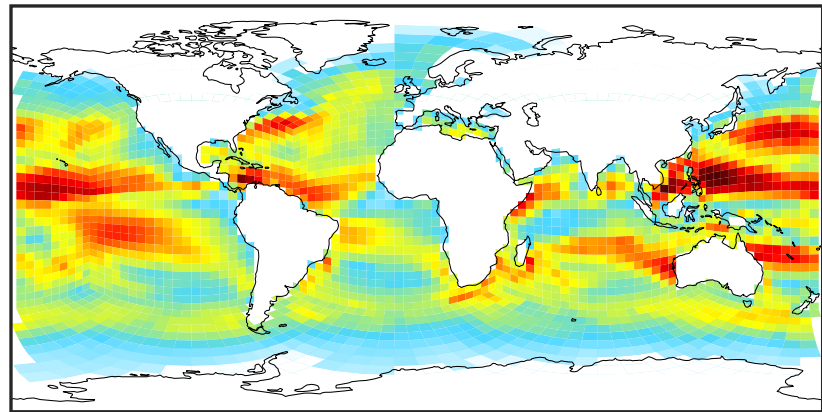


Ratio (1x1.25)  
Dev/Ref, Fixed Range

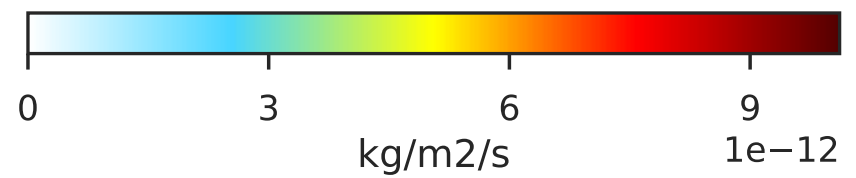
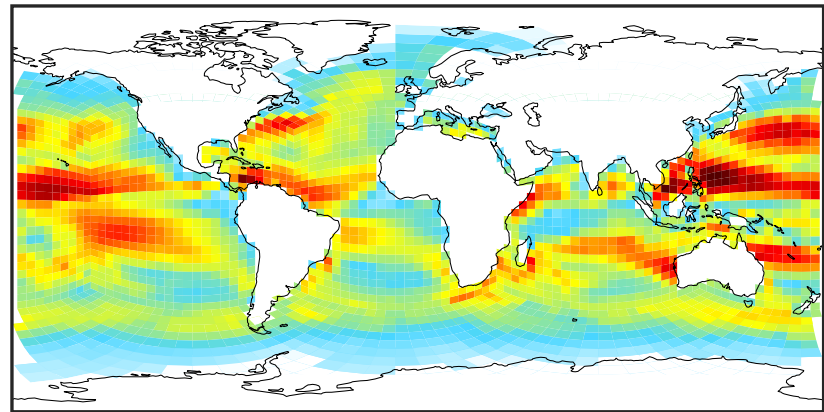


# EmisACET\_Ocean (Jan2019)

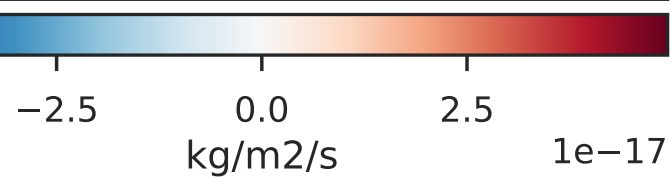
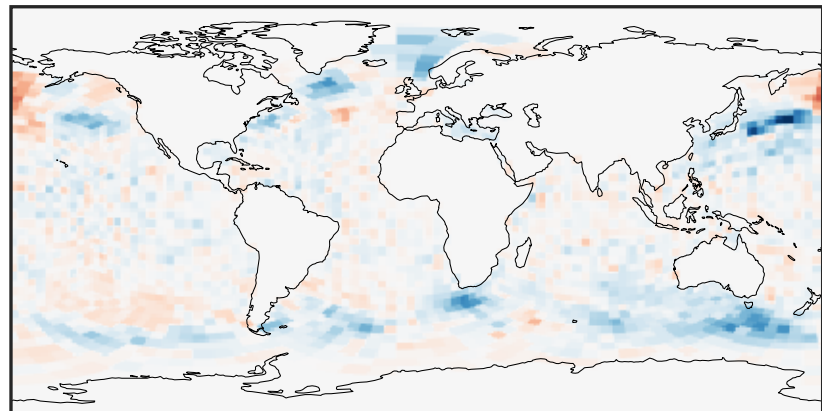
GCHP\_14.0.0 (Ref)  
c24



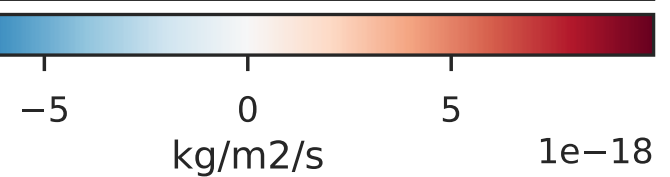
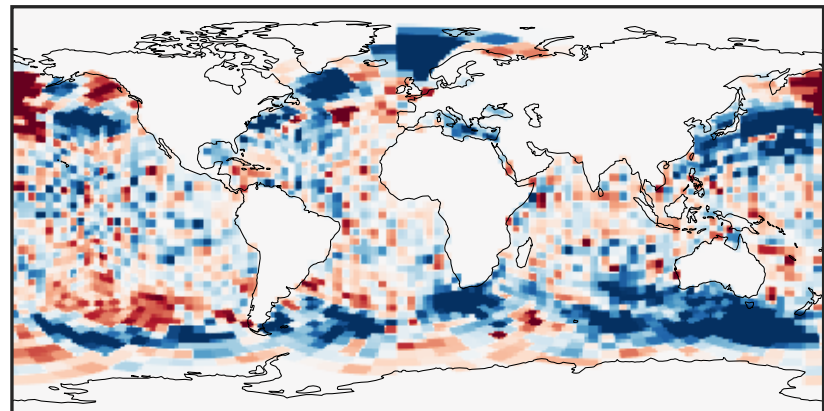
GCHP\_14.2.0 (Dev)  
c24



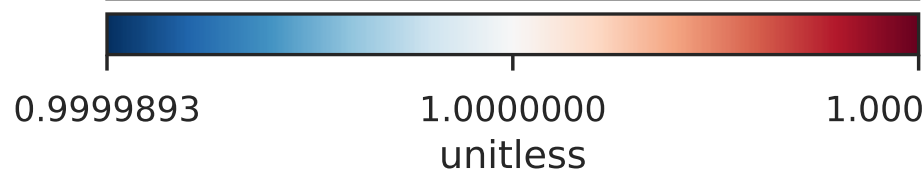
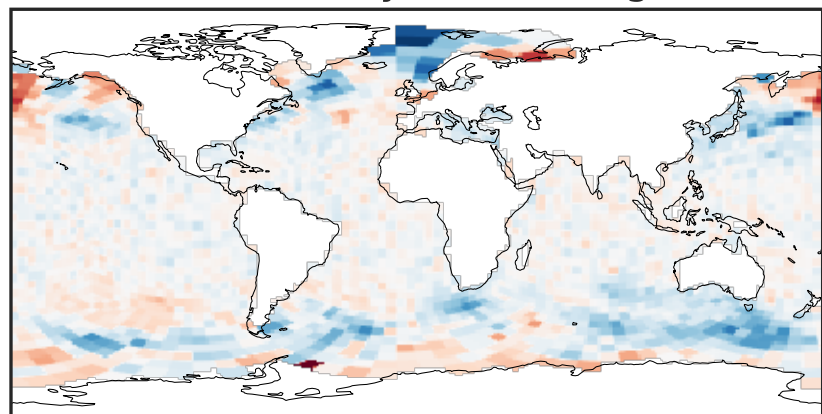
Difference (1x1.25)  
Dev - Ref, Dynamic Range



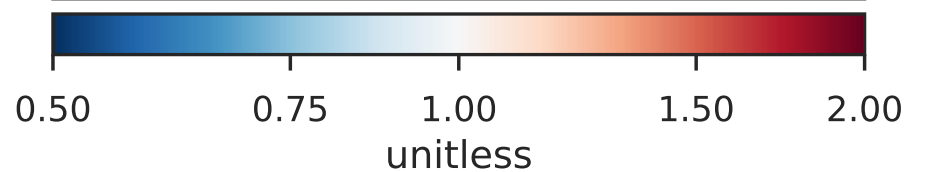
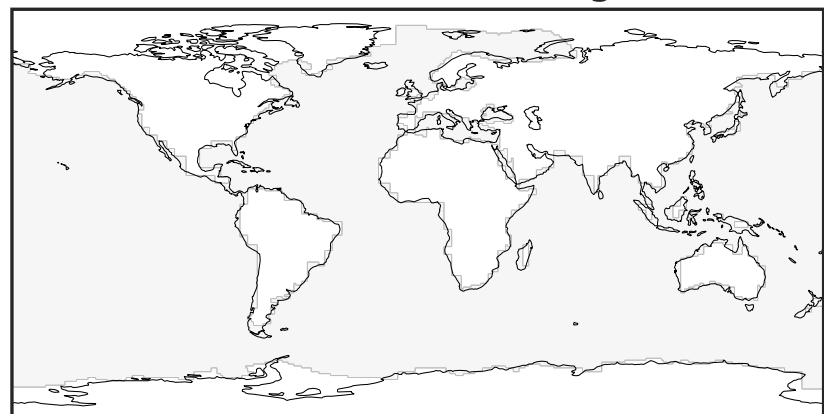
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

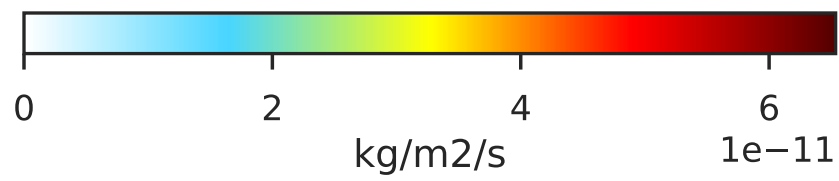
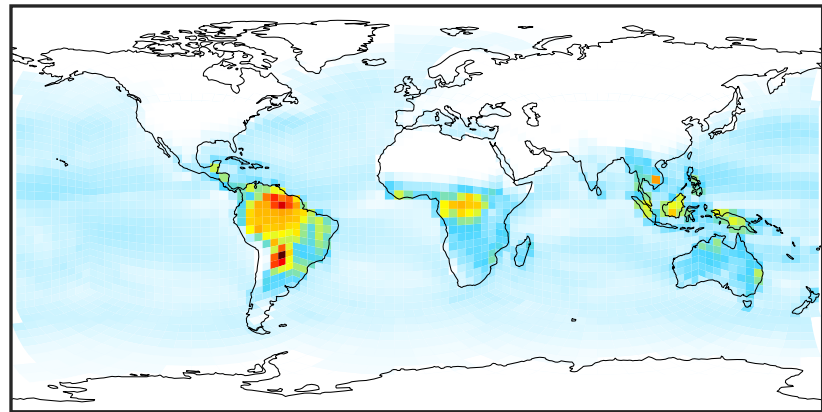


Ratio (1x1.25)  
Dev/Ref, Fixed Range

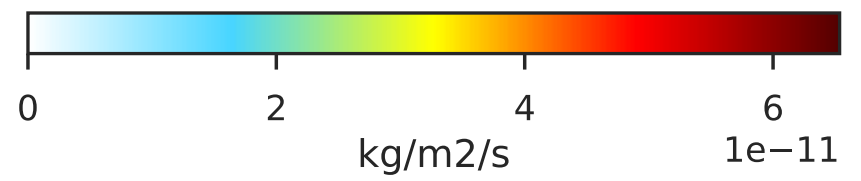
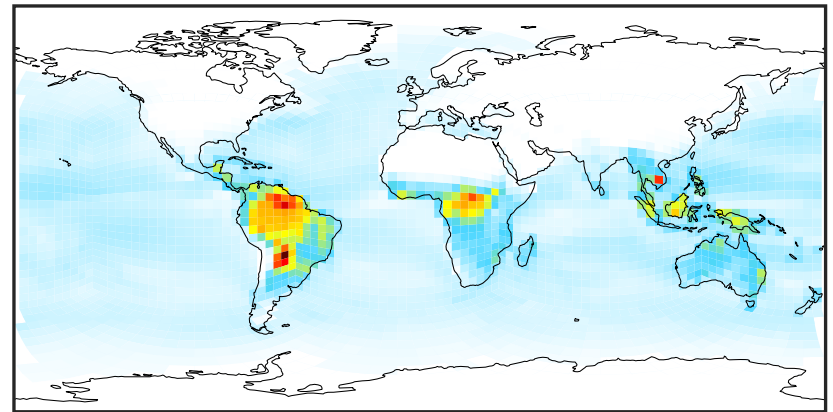


# EmisACET\_Total (Jan2019)

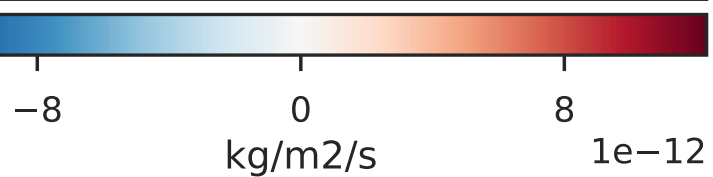
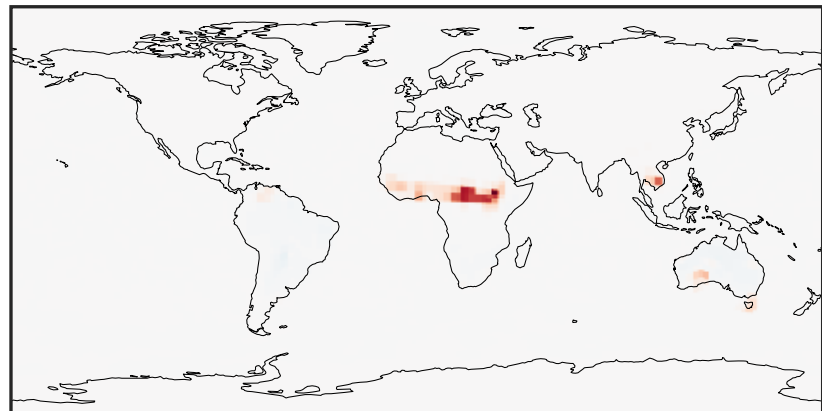
GCHP\_14.0.0 (Ref)  
c24



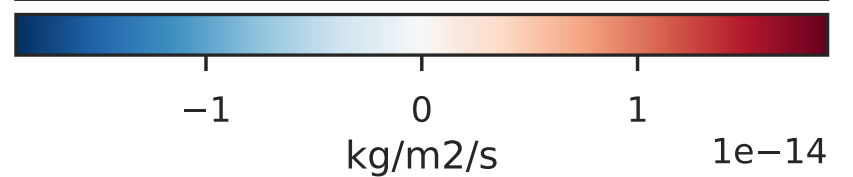
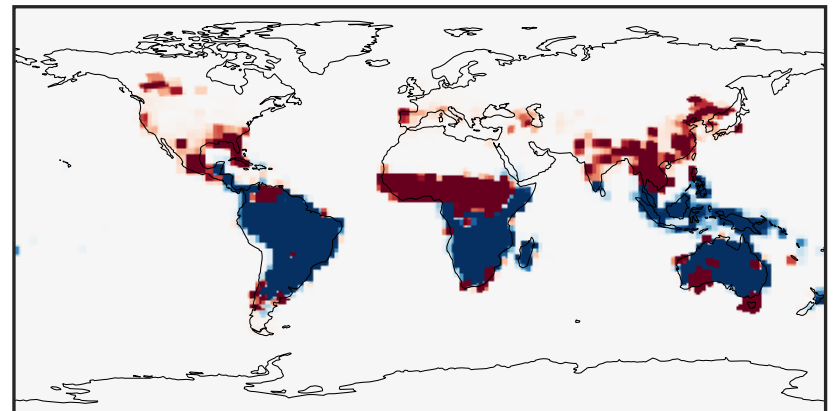
GCHP\_14.2.0 (Dev)  
c24



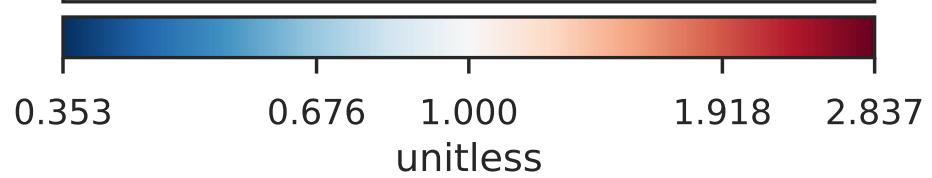
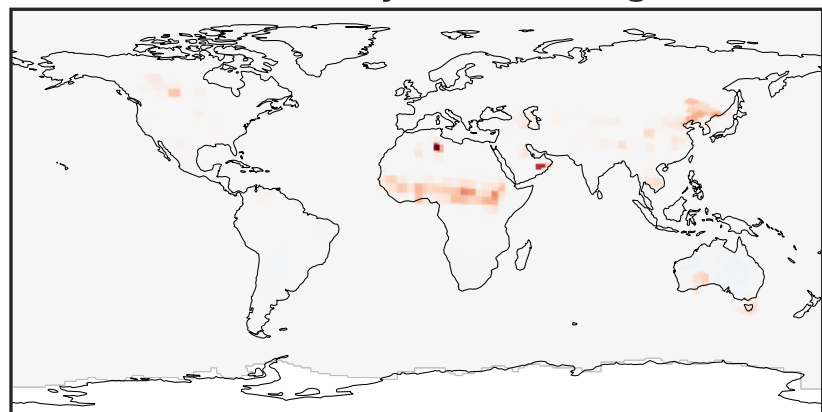
Difference (1x1.25)  
Dev - Ref, Dynamic Range



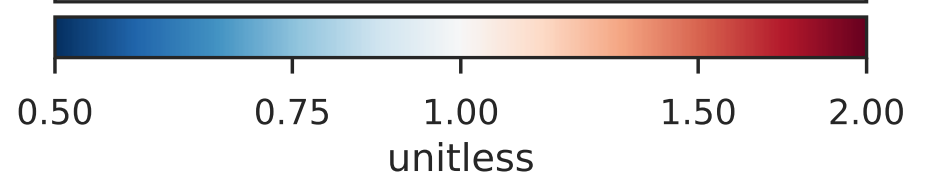
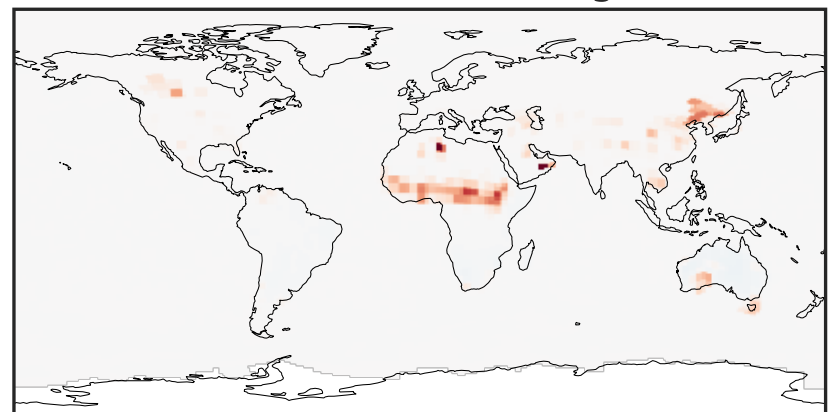
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

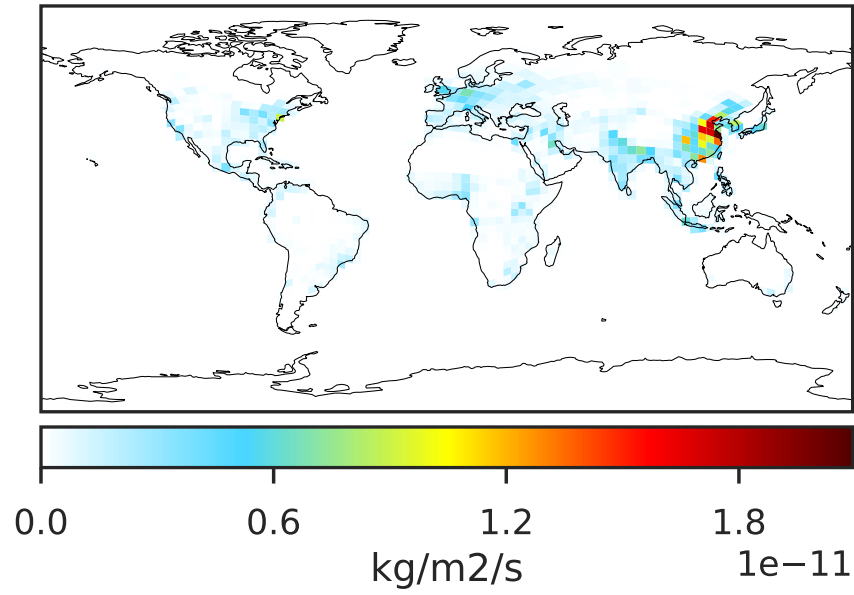


Ratio (1x1.25)  
Dev/Ref, Fixed Range

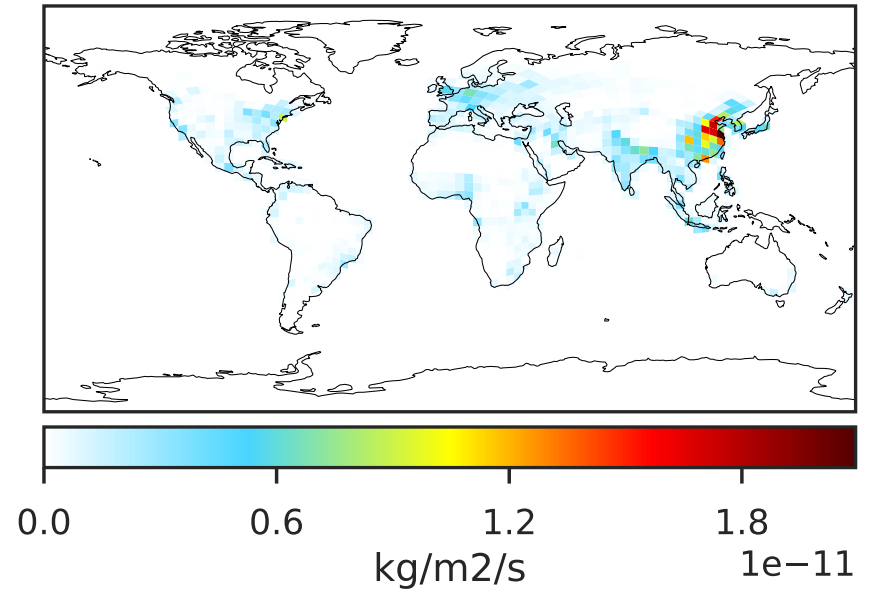


# EmisMEK\_Anthro (Jan2019)

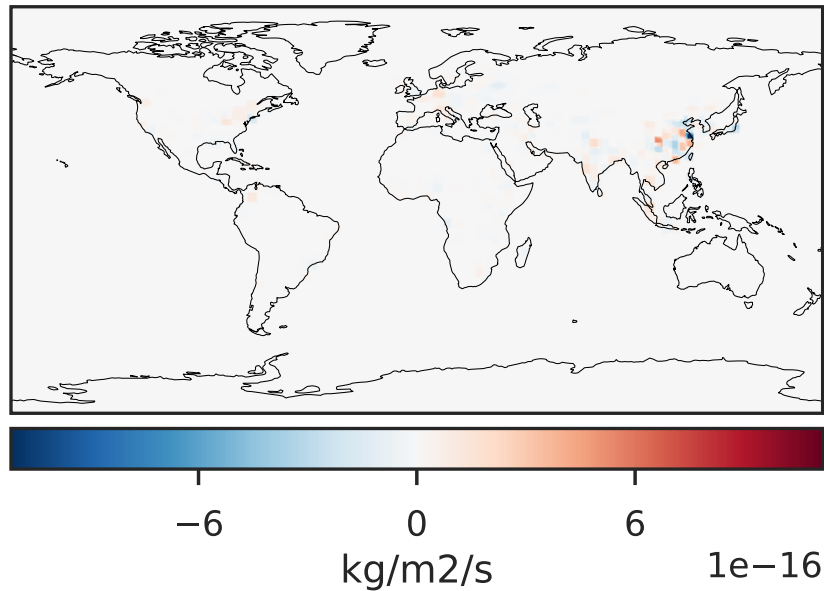
GCHP\_14.0.0 (Ref)  
c24



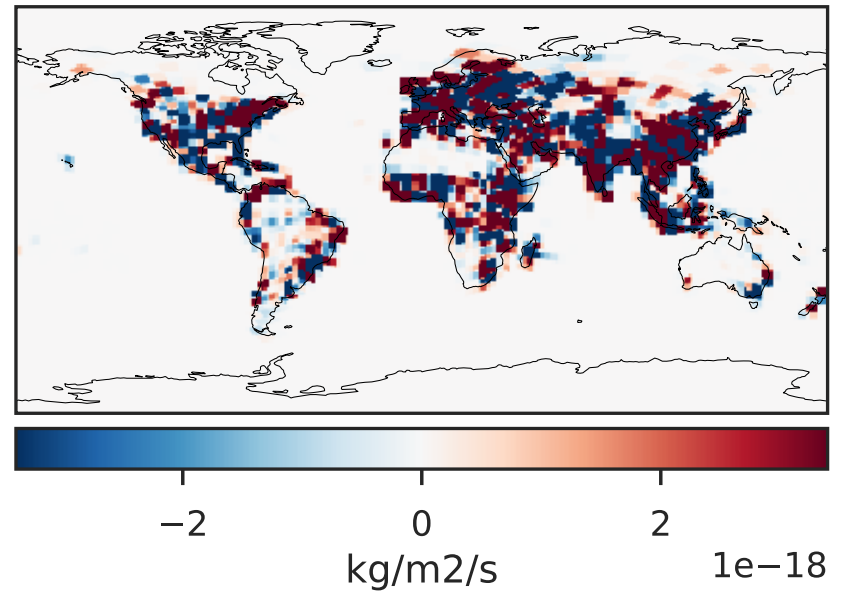
GCHP\_14.2.0 (Dev)  
c24



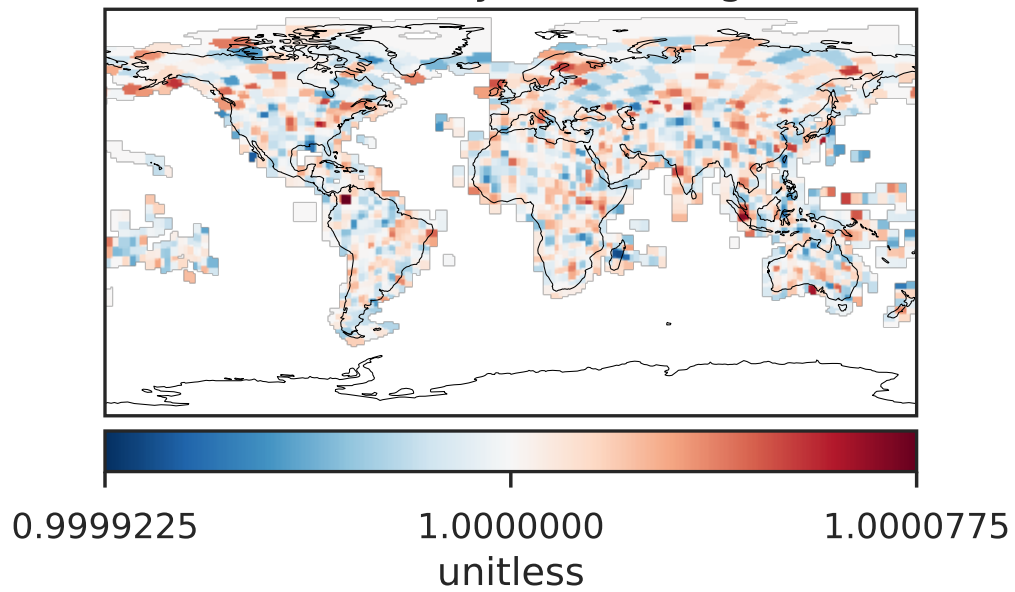
Difference (1x1.25)  
Dev - Ref, Dynamic Range



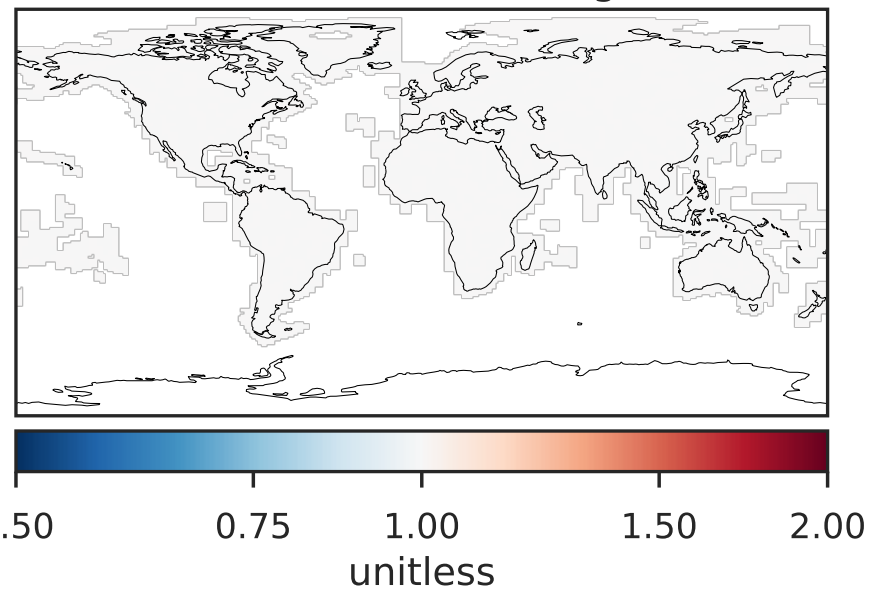
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

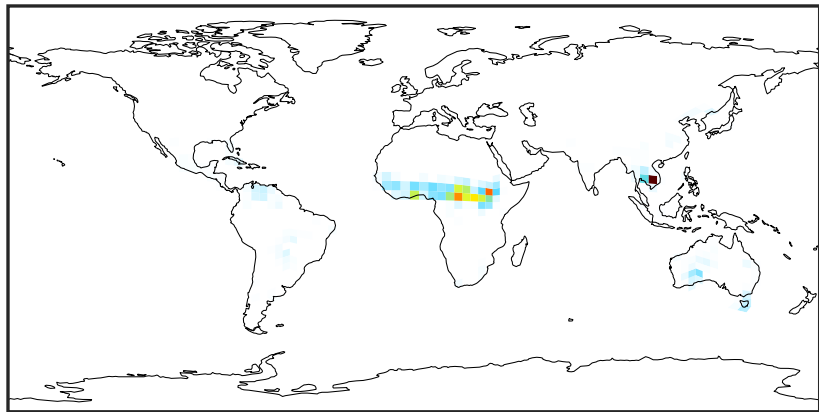


Ratio (1x1.25)  
Dev/Ref, Fixed Range



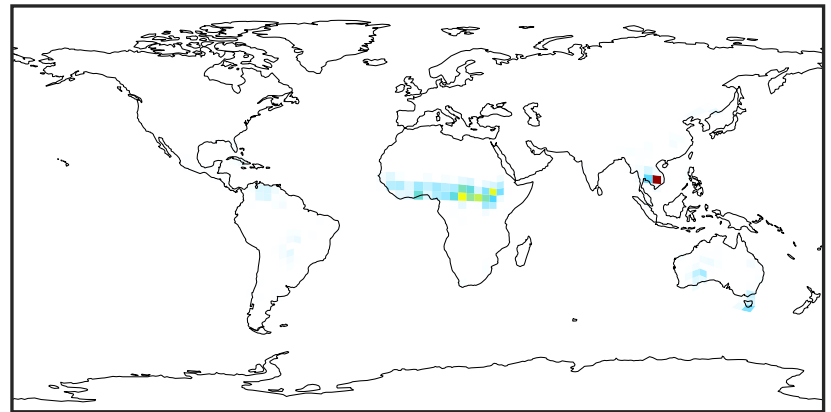
# EmisMEK\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



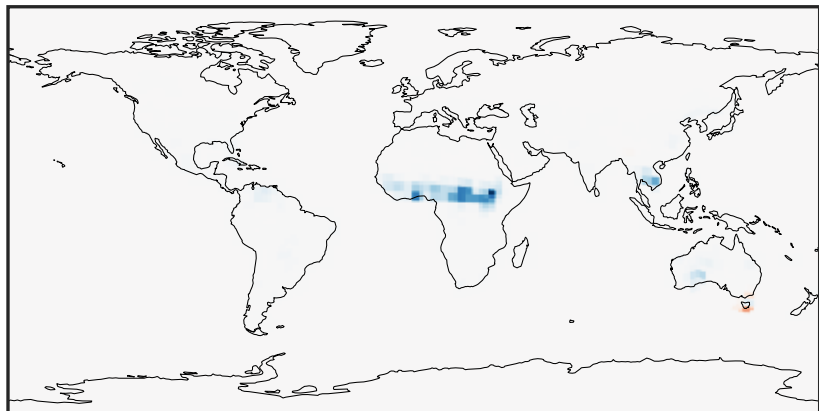
0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-11

GCHP\_14.2.0 (Dev)  
c24



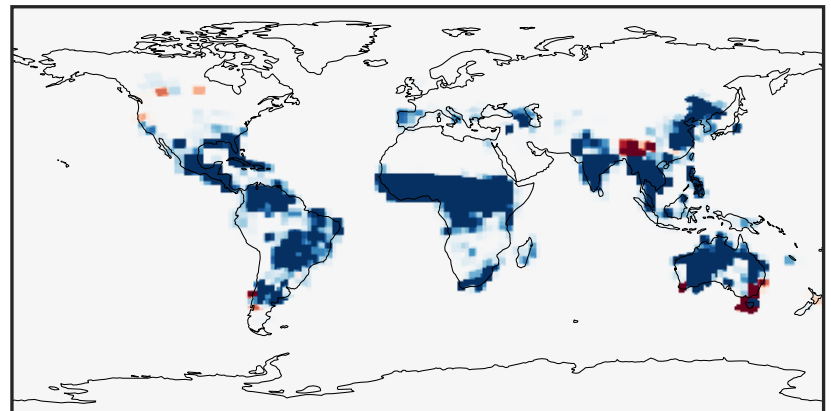
0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-11

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



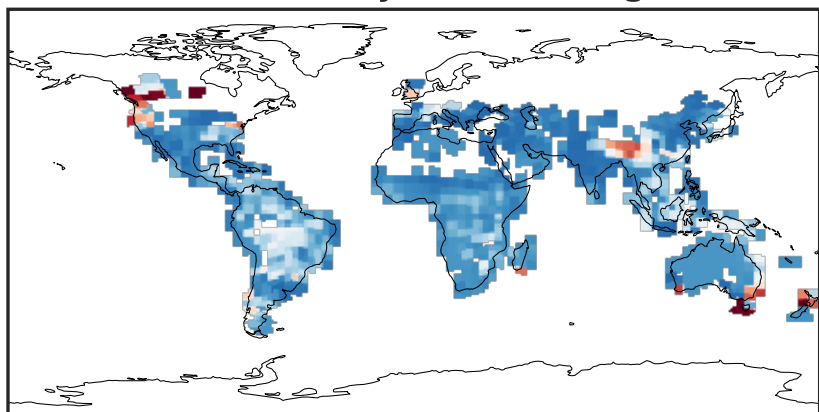
-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-12

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



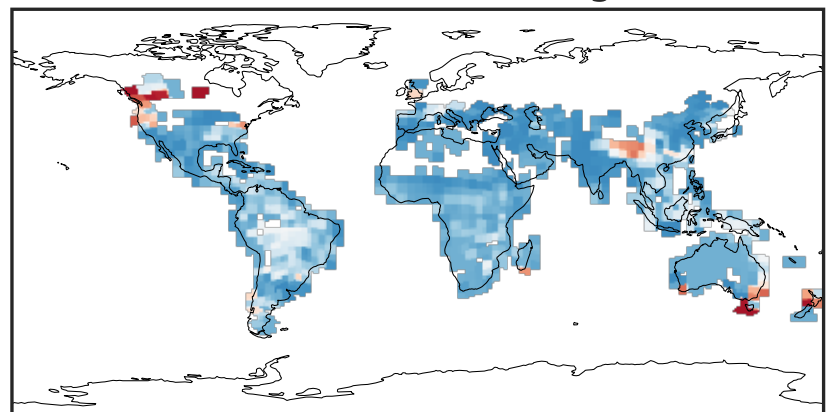
-3 0 3  
kg/m<sup>2</sup>/s 1e-15

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



0.565 0.783 1.000 1.385 1.769  
unitless

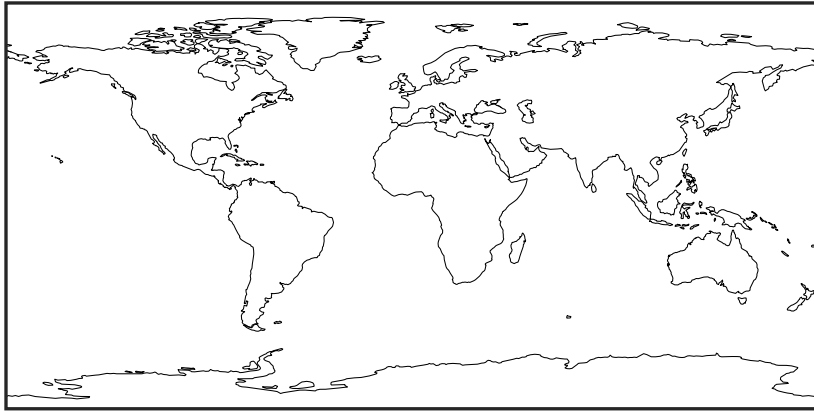
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

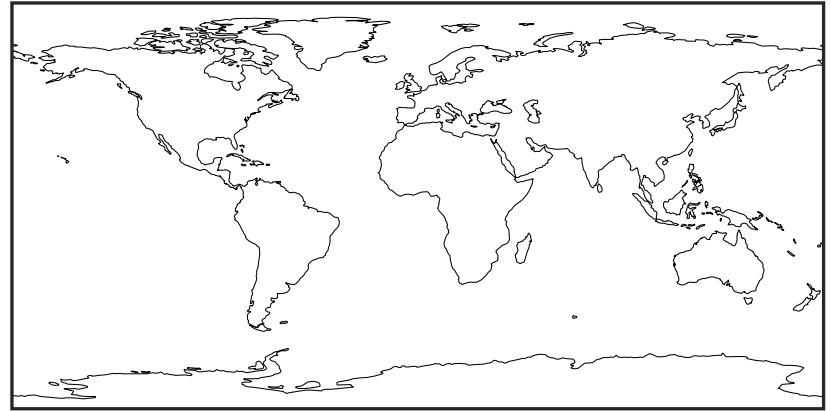
# EmisMEK\_Ship (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



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

GCHP\_14.2.0 (Dev)  
c24



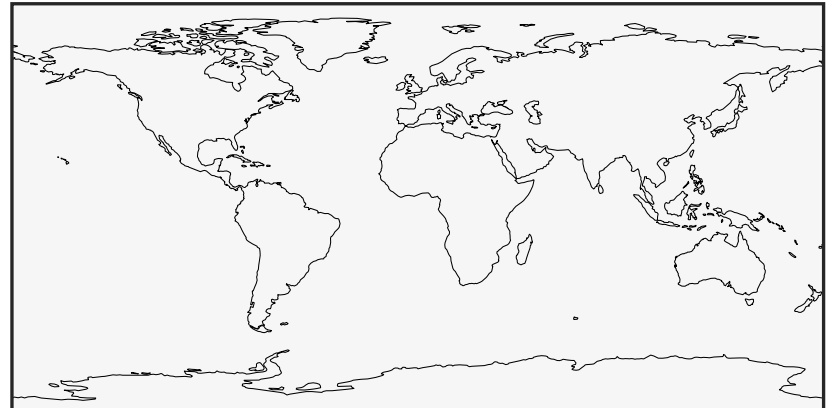
Zero throughput domain  
kg/m<sup>2</sup>/s

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



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

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



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

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



Undefined throughput domain  
unitless

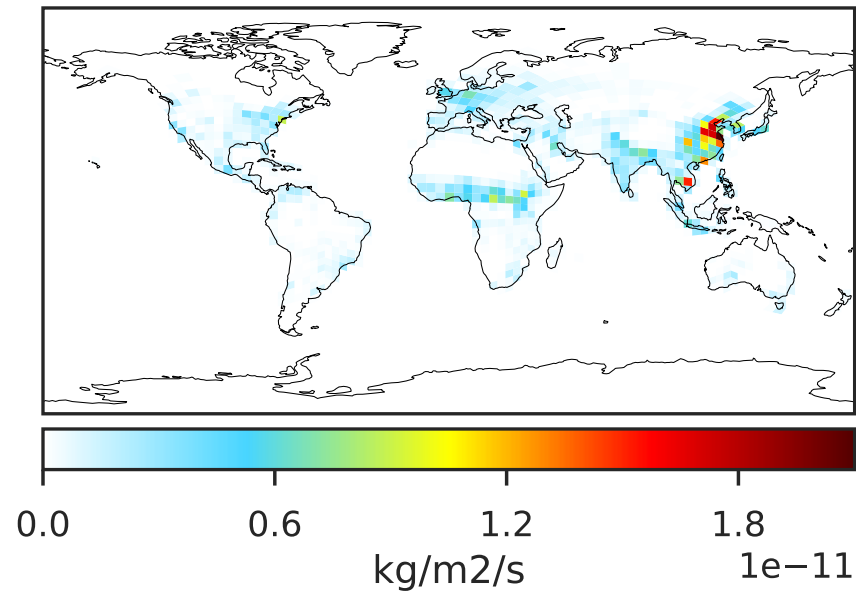
Ratio (1x1.25)  
Dev/Ref, Fixed Range



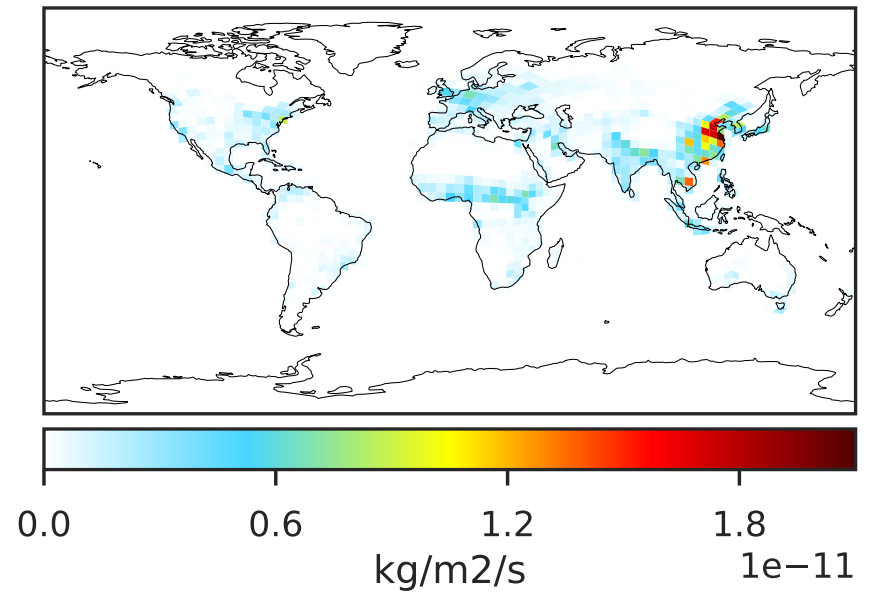
Undefined throughput domain  
unitless

# EmisMEK\_Total (Jan2019)

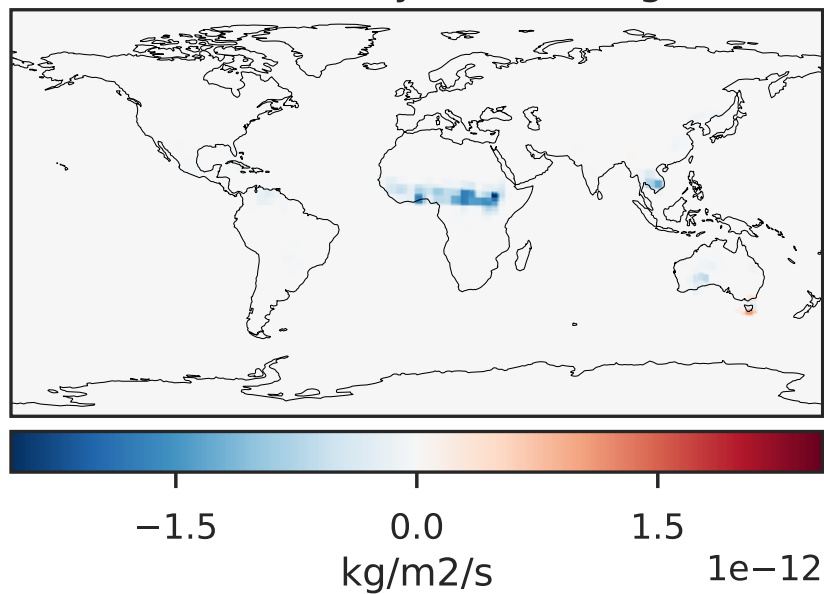
GCHP\_14.0.0 (Ref)  
c24



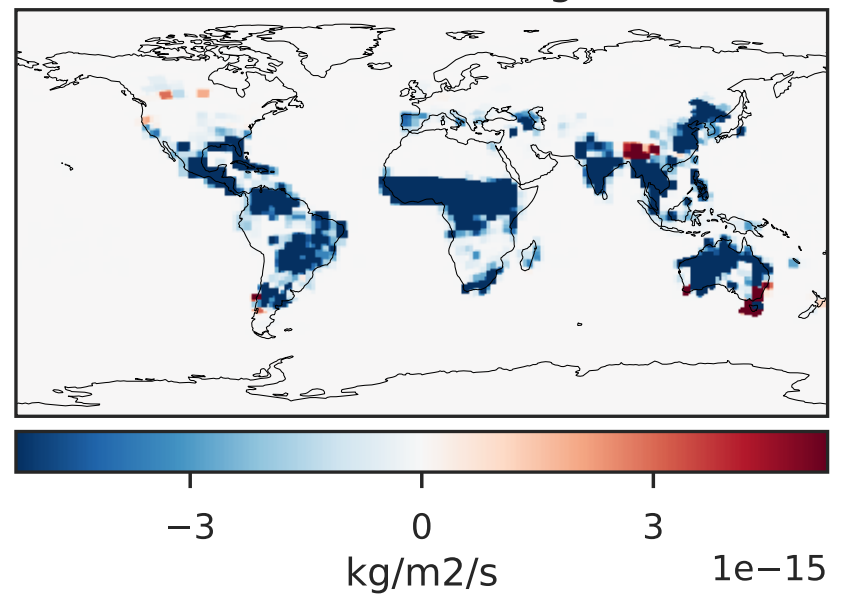
GCHP\_14.2.0 (Dev)  
c24



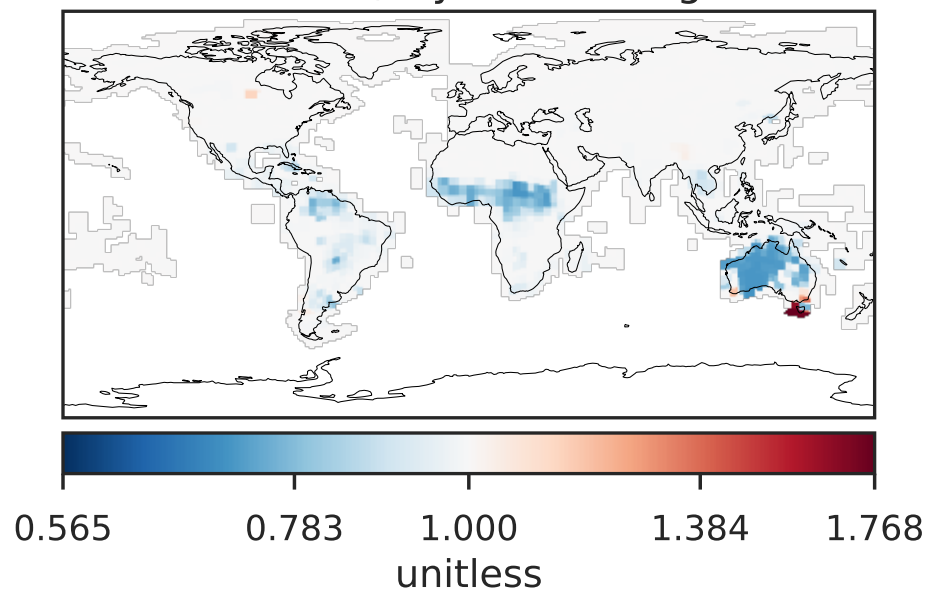
Difference (1x1.25)  
Dev - Ref, Dynamic Range



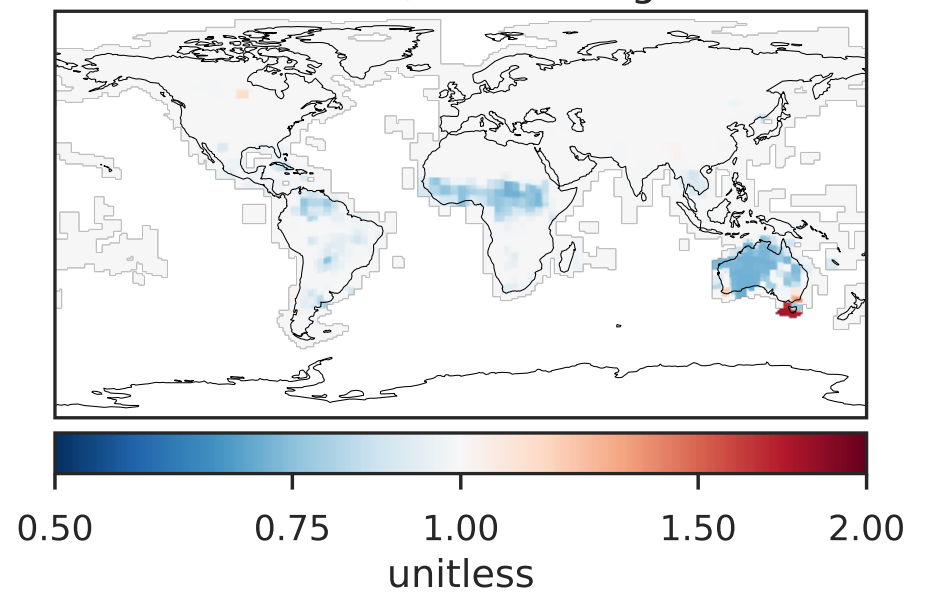
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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



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





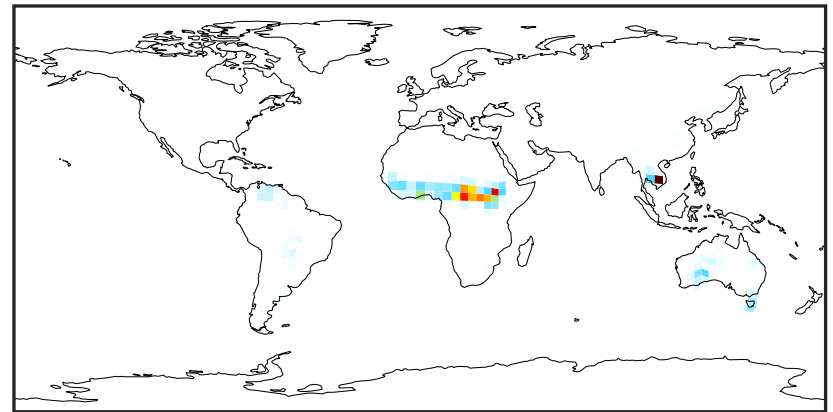
# EmisMVK\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



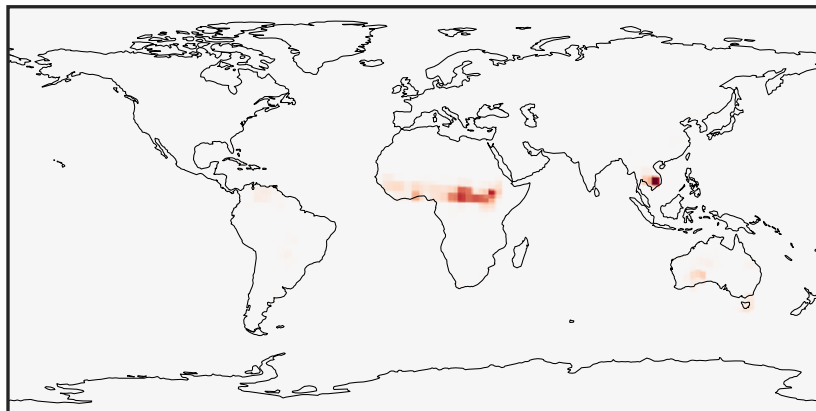
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



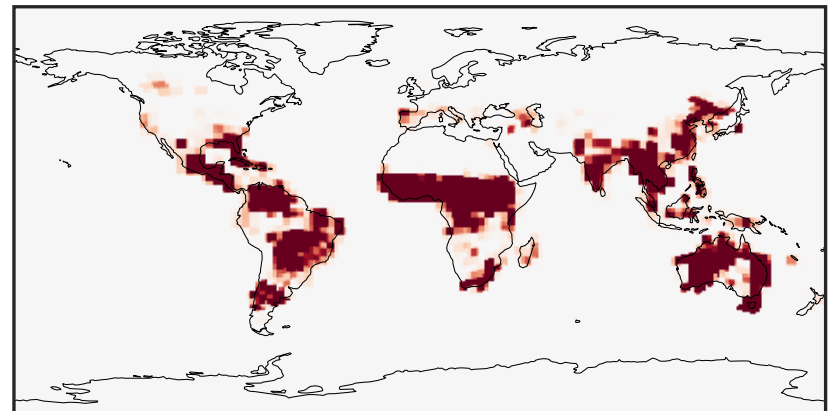
0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-11

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



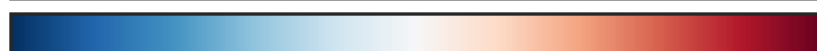
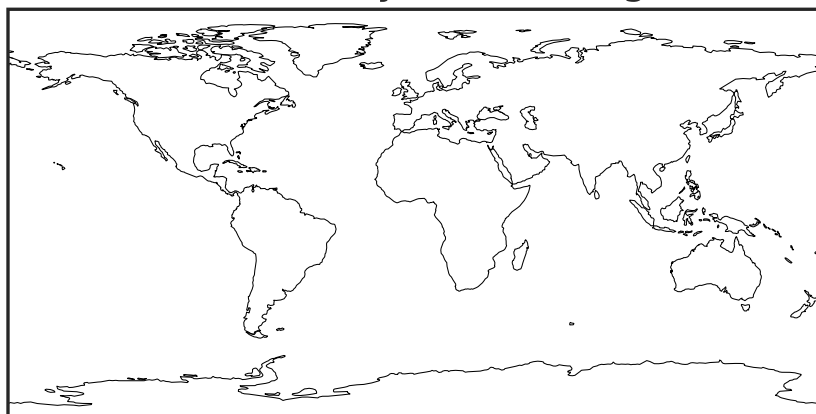
-8 0 8  
kg/m<sup>2</sup>/s 1e-12

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



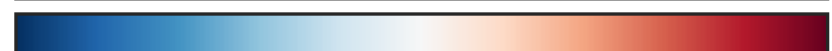
-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughout domain  
unitless

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



Undefined throughout domain  
unitless

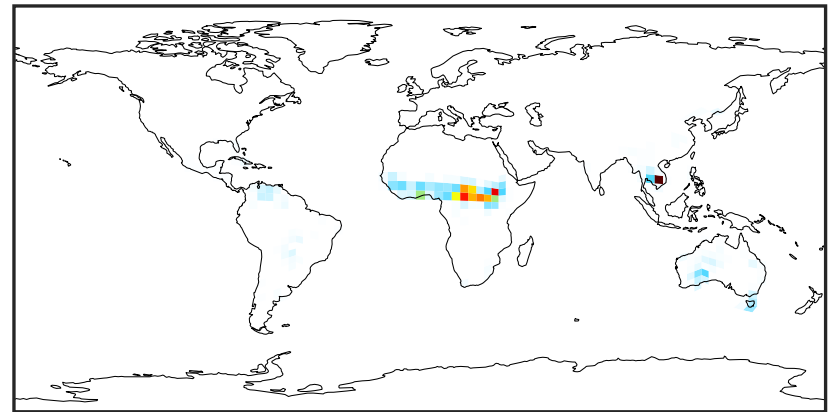
# EmisMVK\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



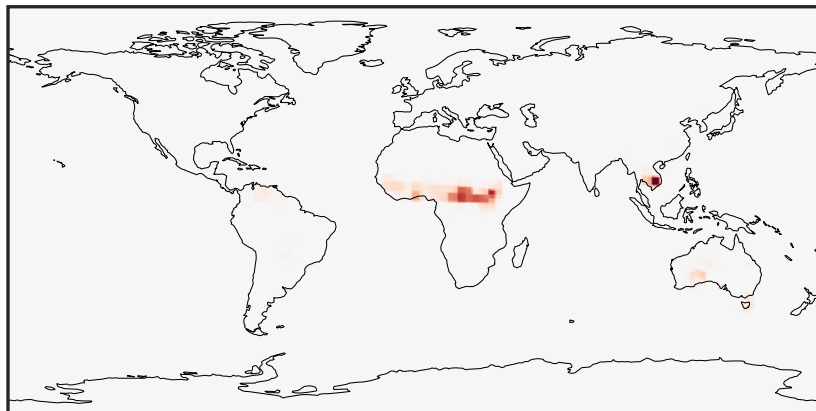
Zero throughput domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



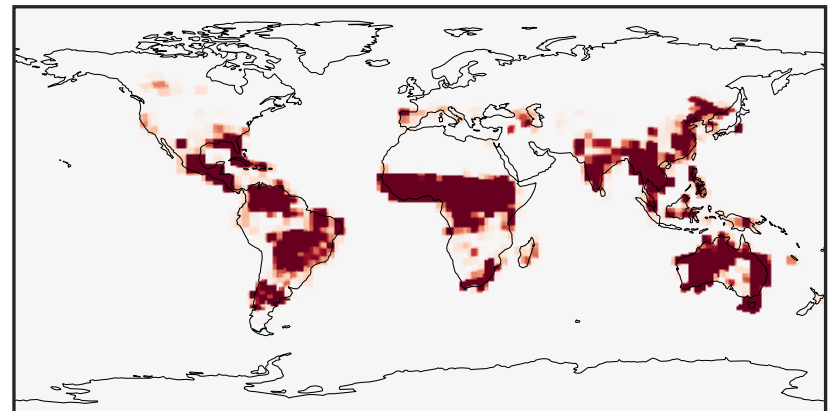
0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-11

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



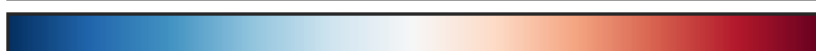
-8 0 8  
kg/m<sup>2</sup>/s 1e-12

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



-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughput domain  
unitless

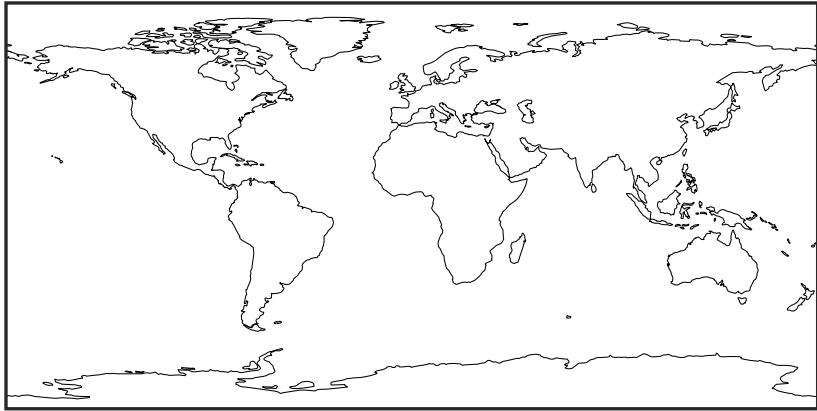
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughput domain  
unitless

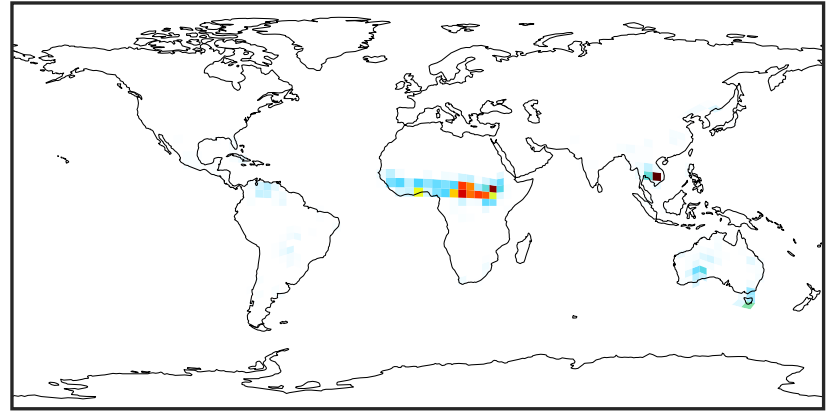
# EmisFURA\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



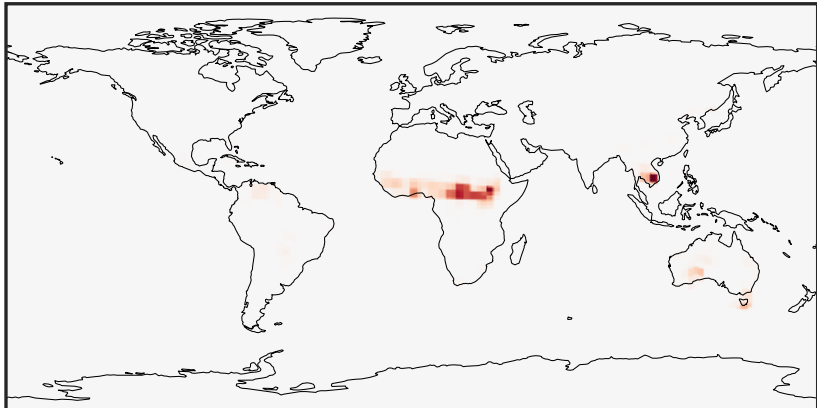
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



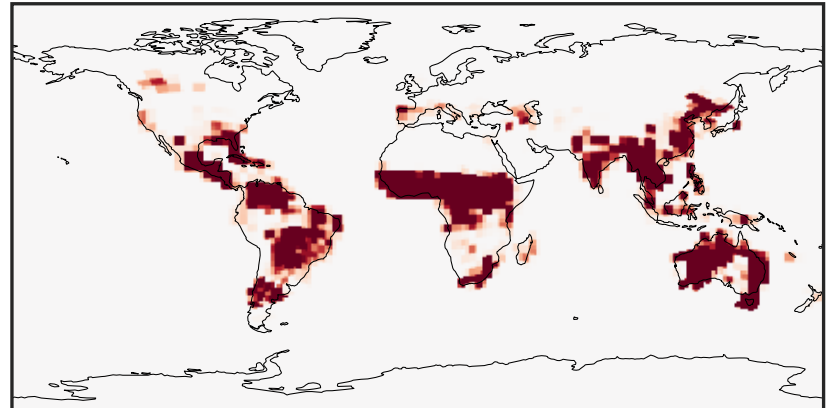
0.0 0.8 1.6 2.4  
kg/m<sup>2</sup>/s 1e-11

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



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

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



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

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



Undefined throughout domain  
unitless

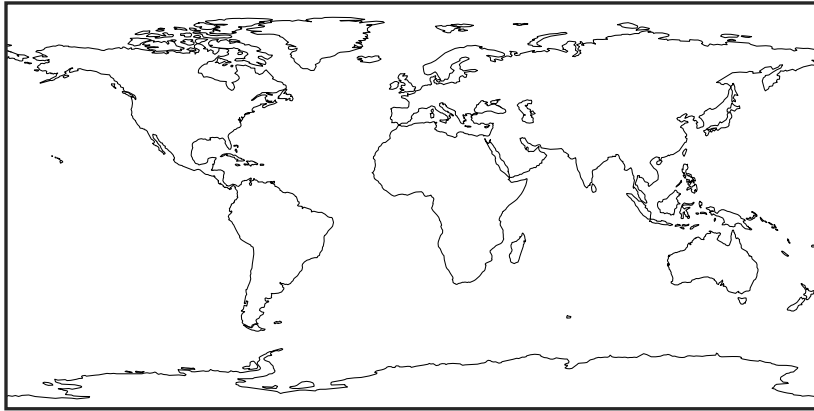
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

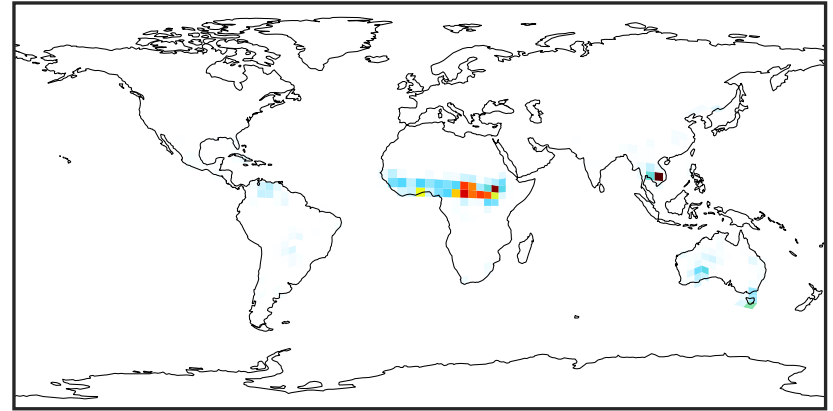
# EmisFURA\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



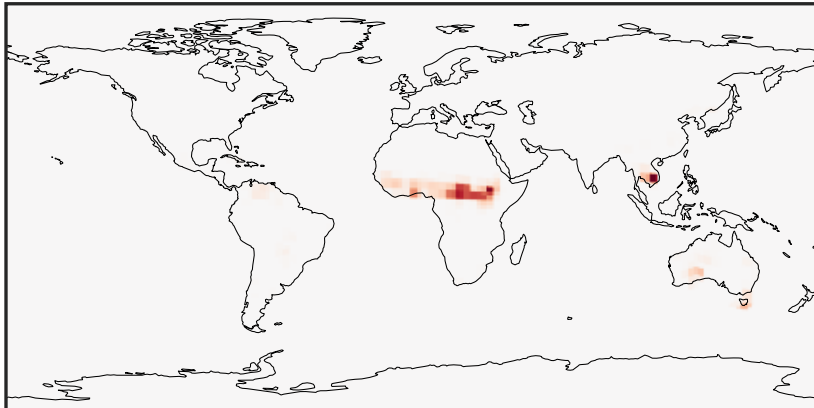
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



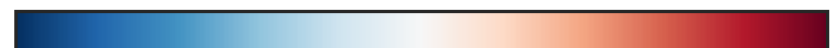
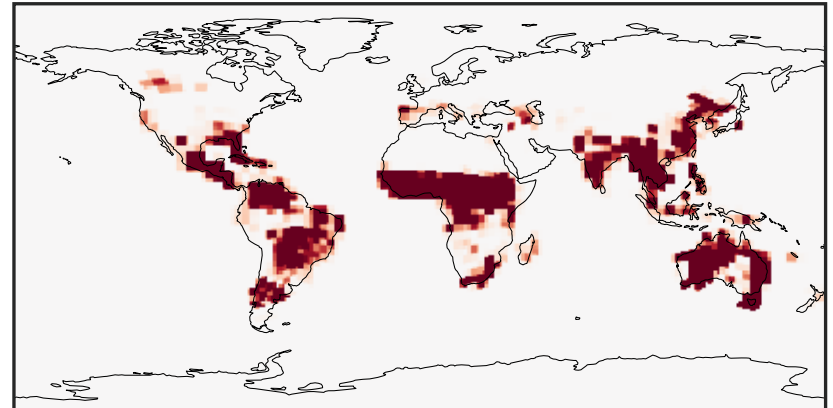
0.0 0.8 1.6 2.4  
kg/m<sup>2</sup>/s 1e-11

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



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

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



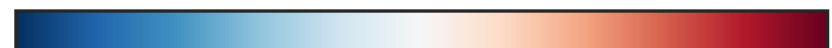
-4 0 4  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughout domain  
unitless

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



Undefined throughout domain  
unitless

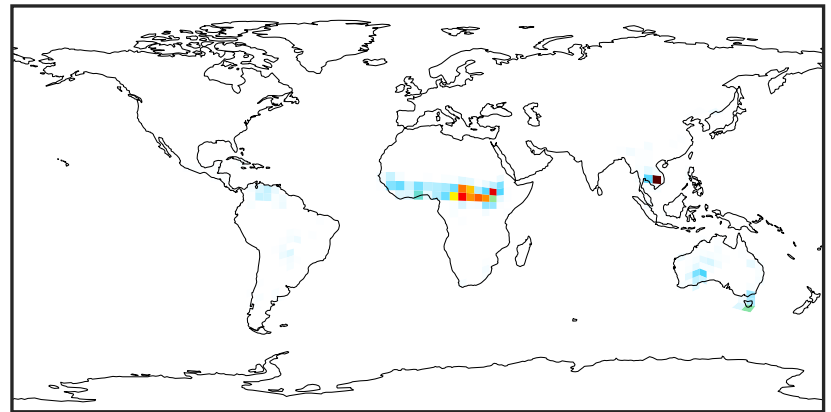
# EmisGLYX\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



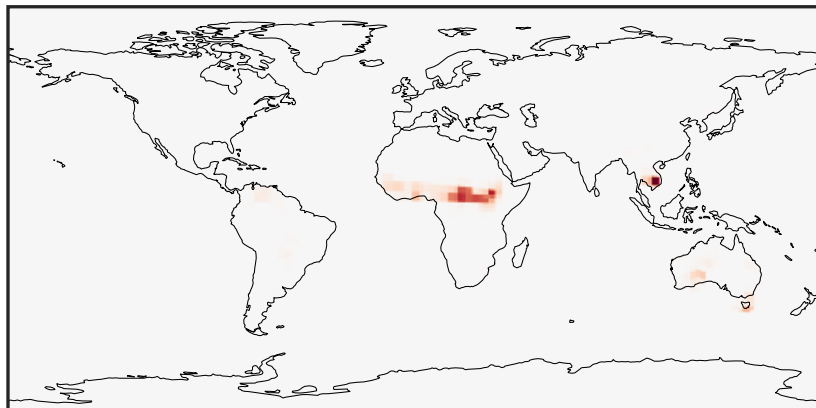
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



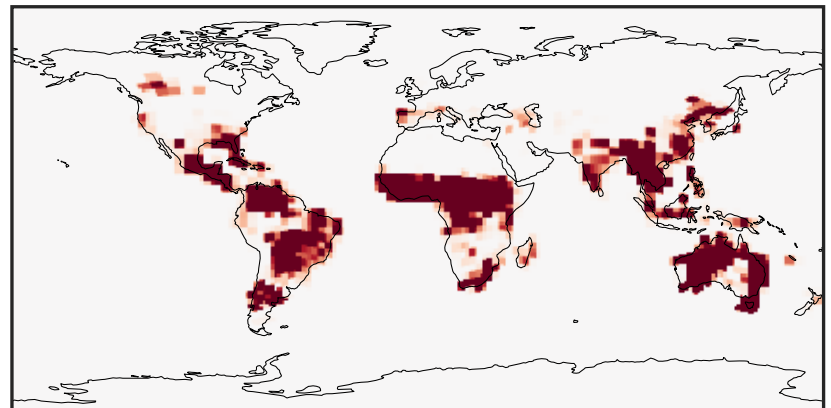
0.0 0.5 1.0 1.5  
kg/m<sup>2</sup>/s 1e-11

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



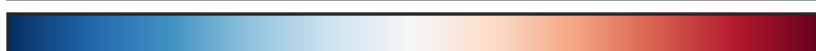
-1 0 1  
kg/m<sup>2</sup>/s 1e-11

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



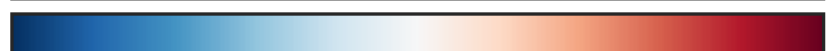
-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughout domain  
unitless

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



Undefined throughout domain  
unitless

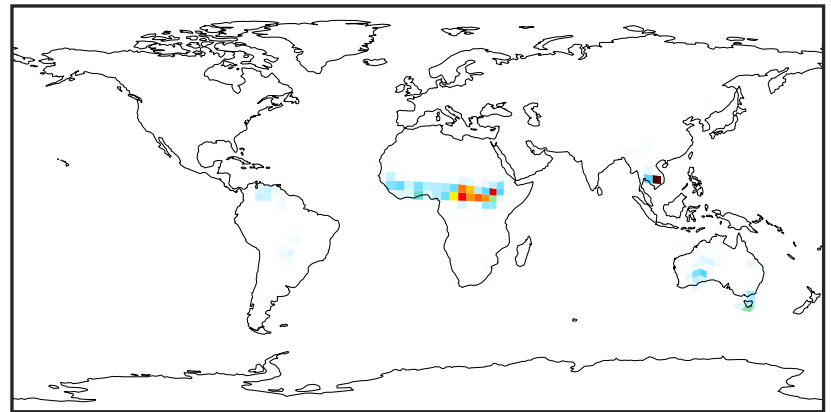
# EmisGLYX\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



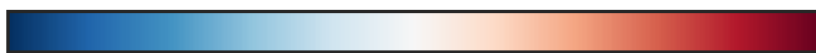
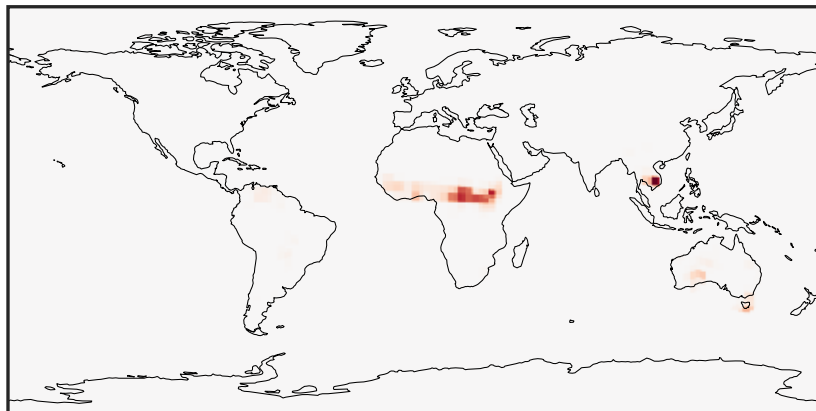
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



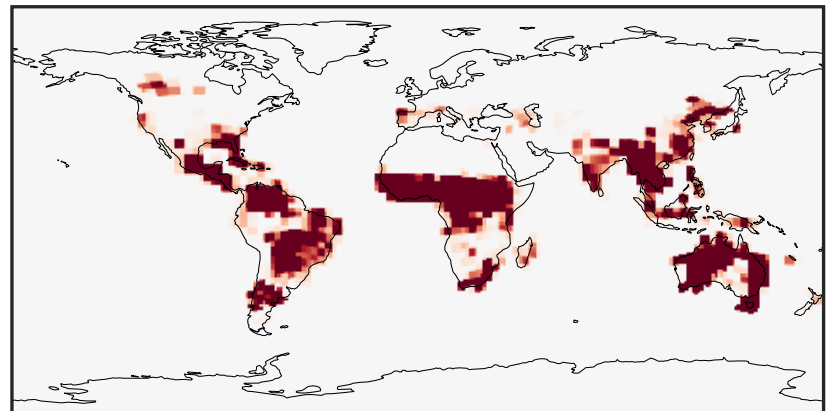
0.0 0.5 1.0 1.5  
kg/m<sup>2</sup>/s 1e-11

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



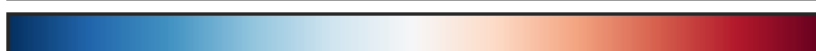
-1 0 1  
kg/m<sup>2</sup>/s 1e-11

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



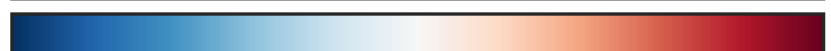
-1.5 0.0 1.5  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughout domain  
unitless

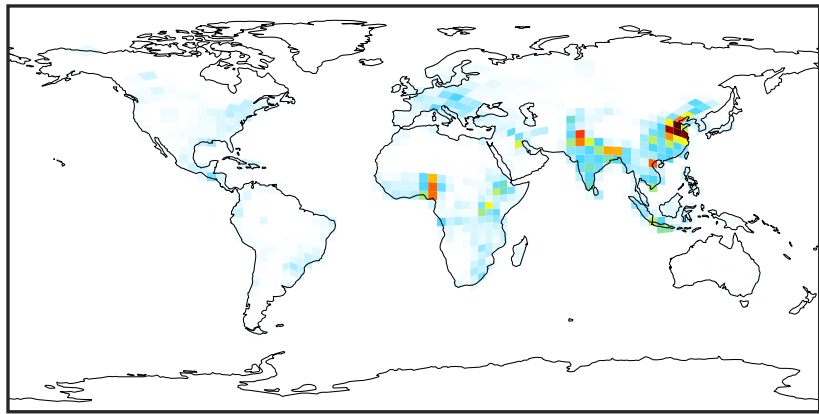
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

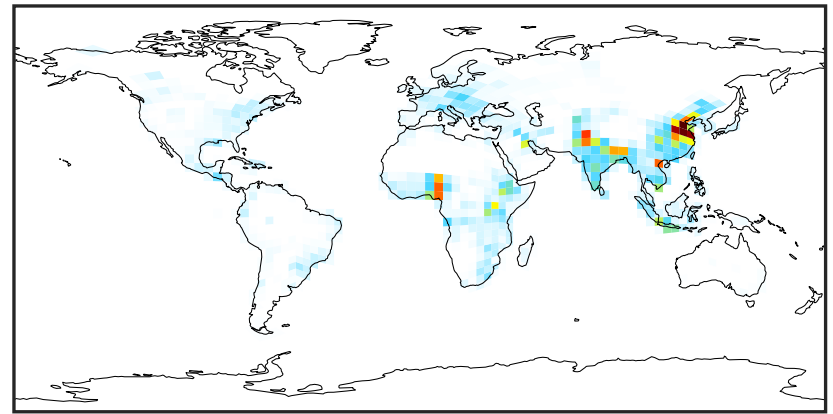
# EmisHCOOH\_Anthro (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



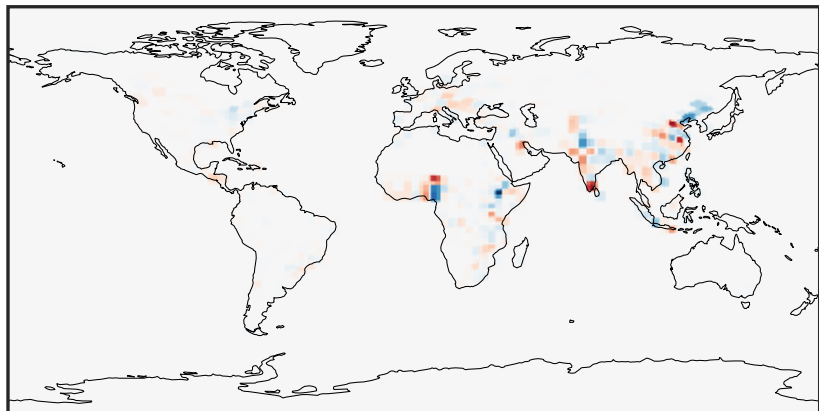
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

GCHP\_14.2.0 (Dev)  
c24



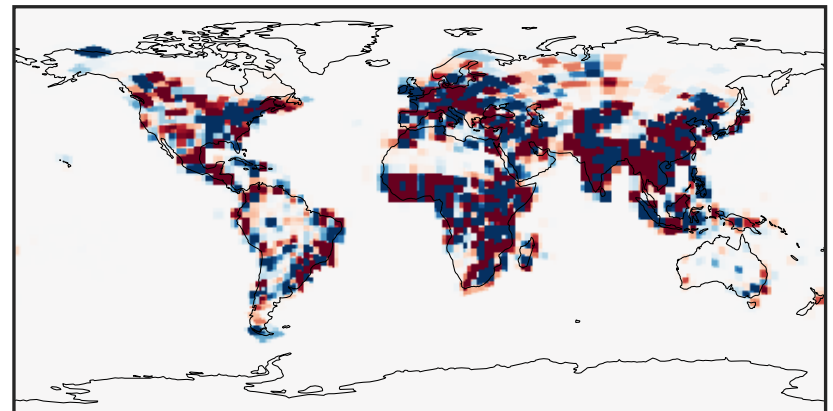
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

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



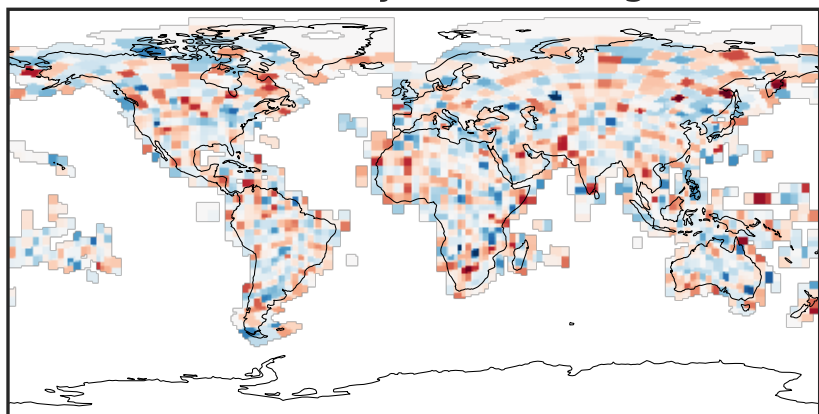
-5 0 5  
kg/m<sup>2</sup>/s 1e-16

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



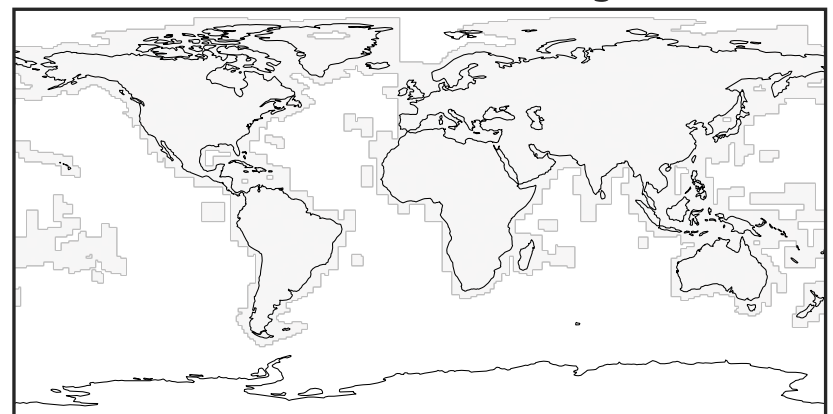
-4 0 4  
kg/m<sup>2</sup>/s 1e-18

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



0.9999345 1.000000 1.0000656  
unitless

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



0.50 0.75 1.00 1.50 2.00  
unitless

# EmisHCOOH\_Ship (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



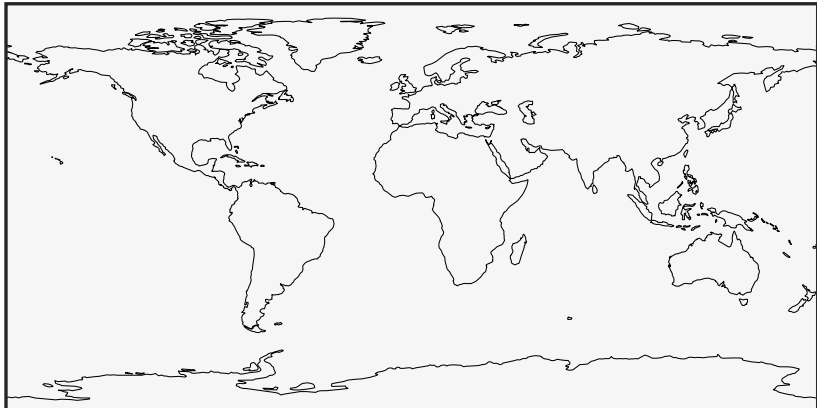
Zero throughput domain  
kg/m2/s

GCHP\_14.2.0 (Dev)  
c24



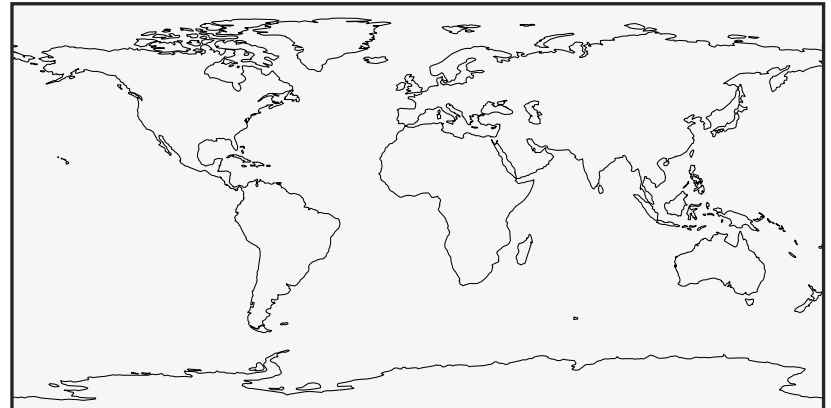
Zero throughput domain  
kg/m2/s

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



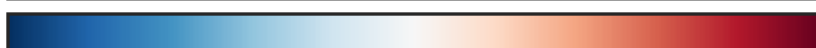
Zero throughput domain  
kg/m2/s

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



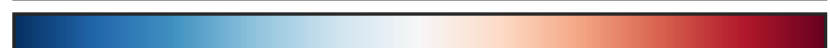
Zero throughput domain  
kg/m2/s

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



Undefined throughput domain  
unitless

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

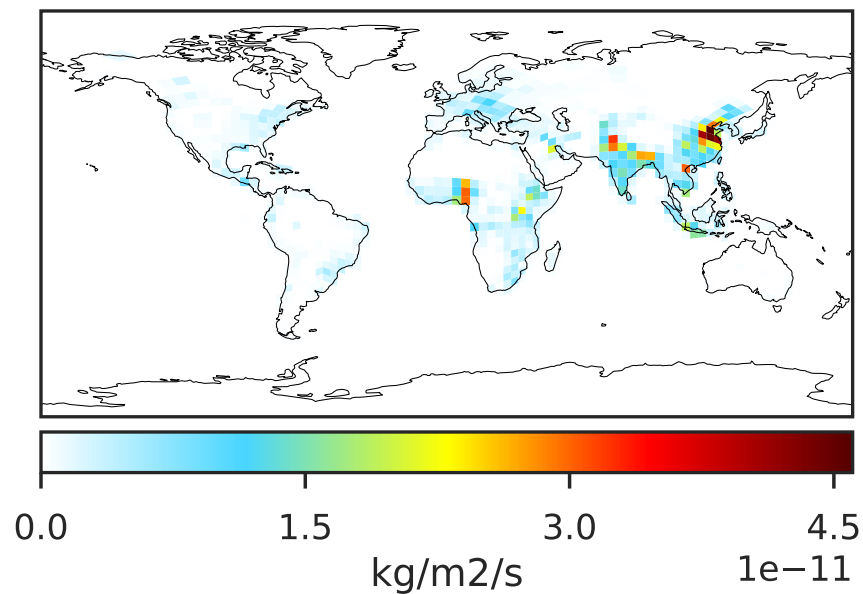


Undefined throughput domain  
unitless

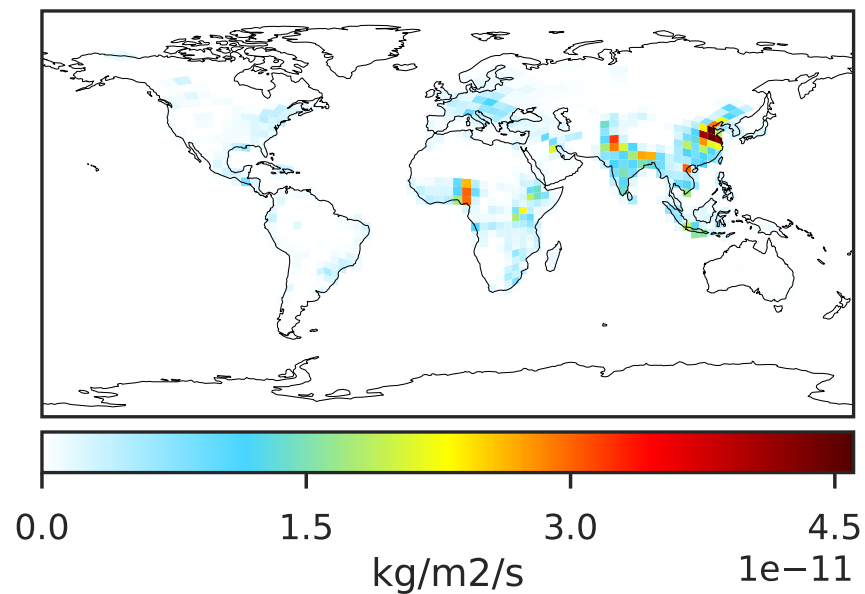


# EmisHCOOH\_Total (Jan2019)

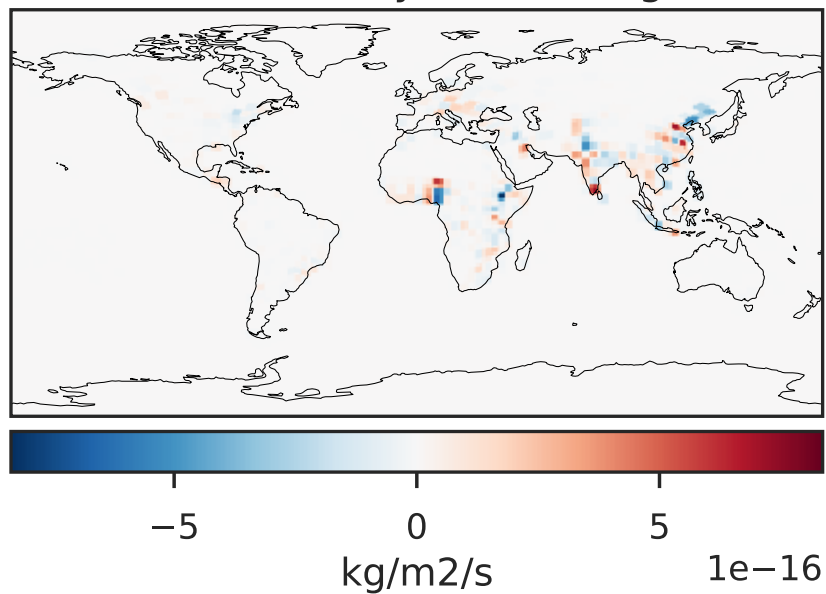
GCHP\_14.0.0 (Ref)  
c24



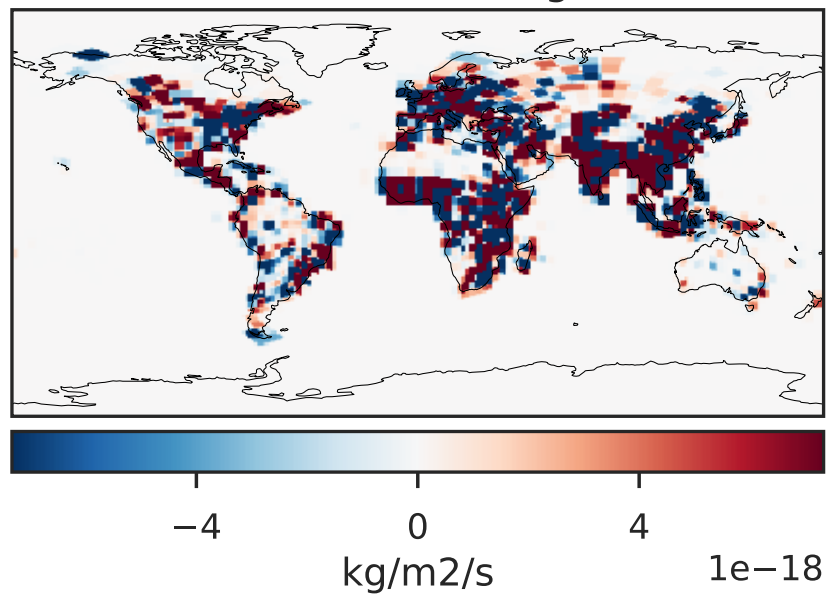
GCHP\_14.2.0 (Dev)  
c24



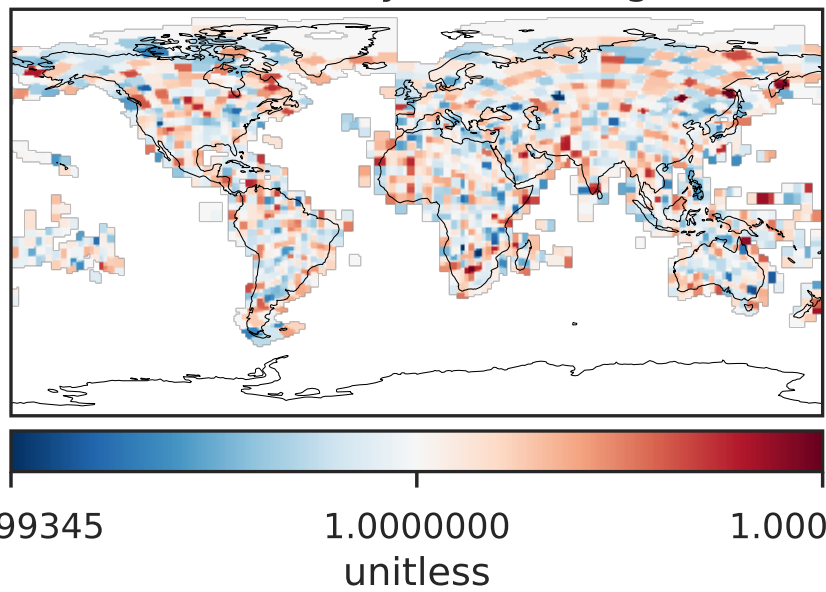
Difference (1x1.25)  
Dev - Ref, Dynamic Range



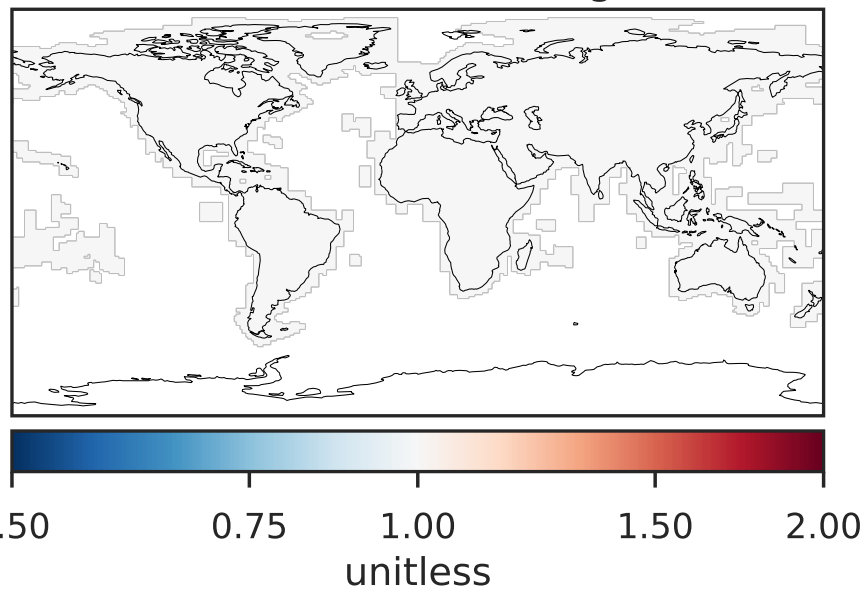
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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



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



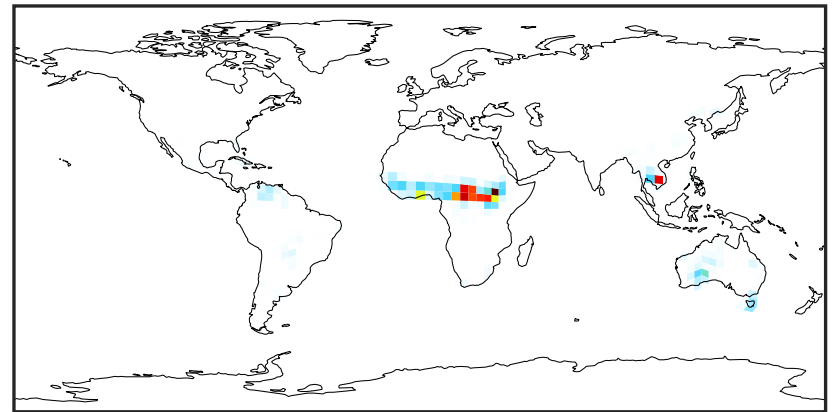
# EmisPHEN\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



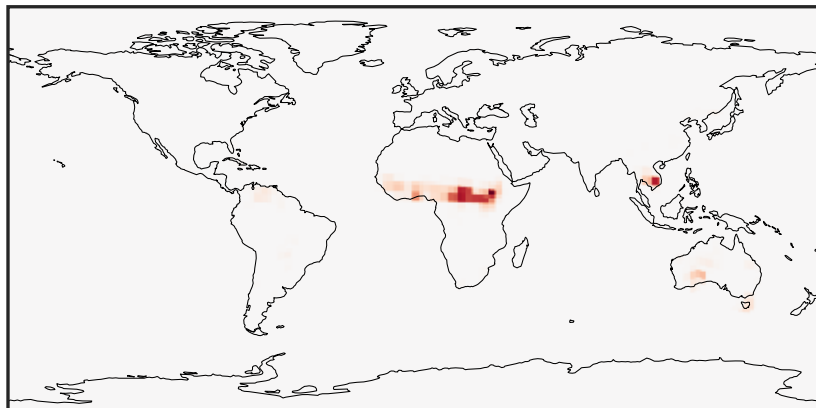
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



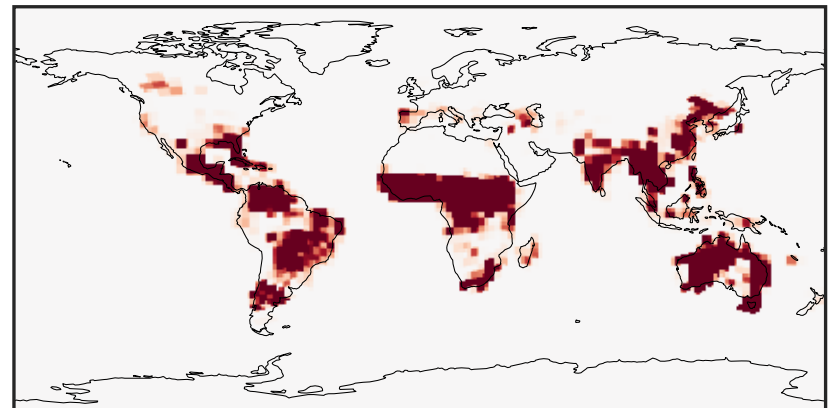
0.0 0.5 1.0 1.5  
kg/m<sup>2</sup>/s 1e-11

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



-1 0 1  
kg/m<sup>2</sup>/s 1e-11

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



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

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



Undefined throughout domain  
unitless

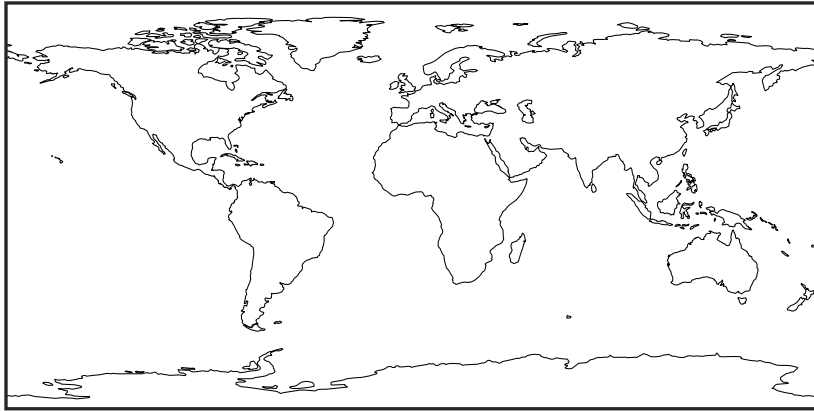
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

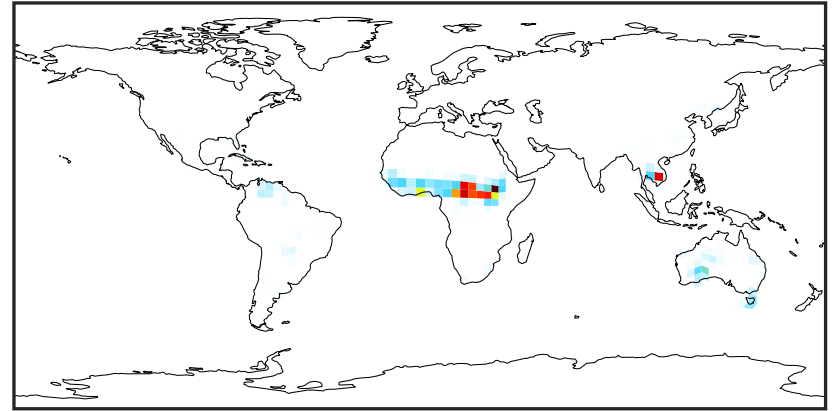
# EmisPHEN\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



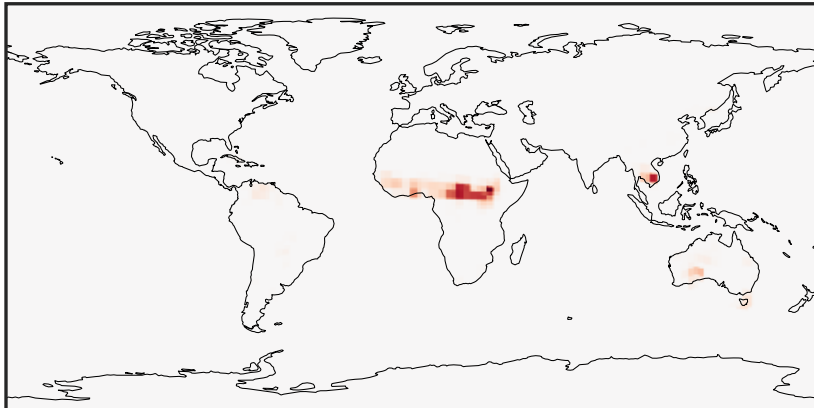
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



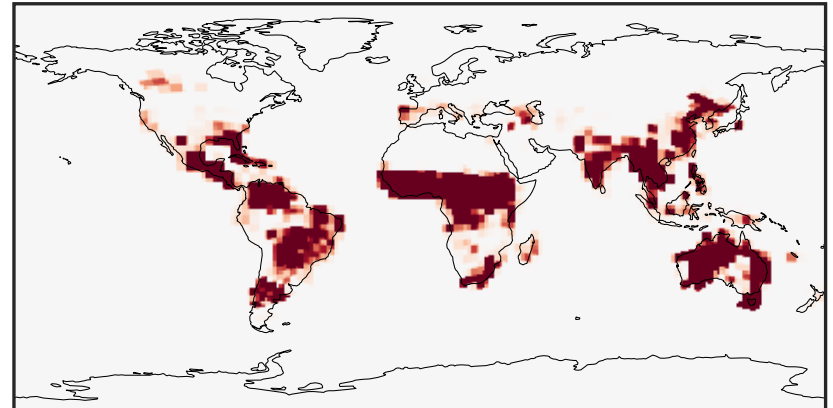
0.0 0.5 1.0 1.5  
kg/m<sup>2</sup>/s 1e-11

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



-1 0 1  
kg/m<sup>2</sup>/s 1e-11

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



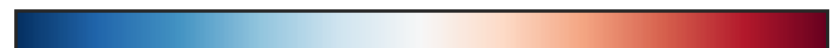
-2 0 2  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughout domain  
unitless

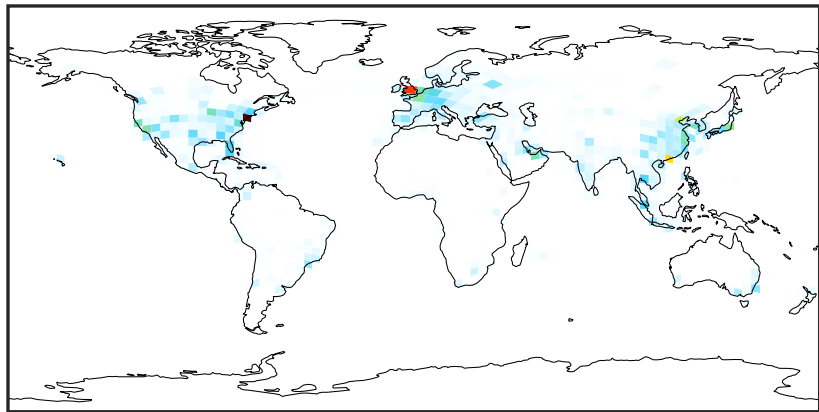
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

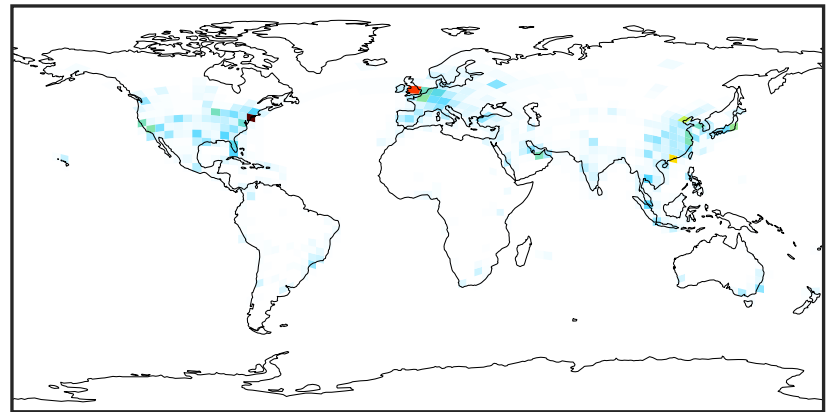
# EmisRCHO\_Aircraft (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



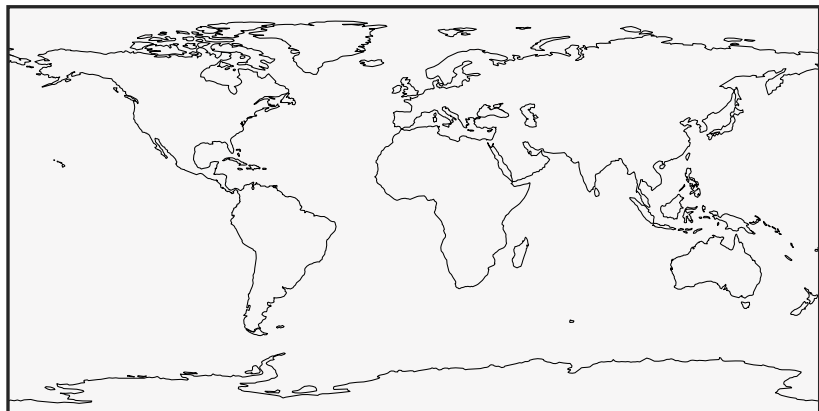
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-14

GCHP\_14.2.0 (Dev)  
c24



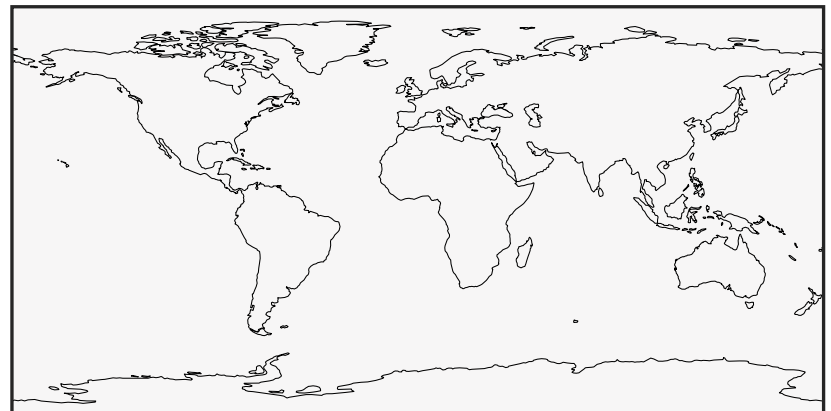
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-14

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



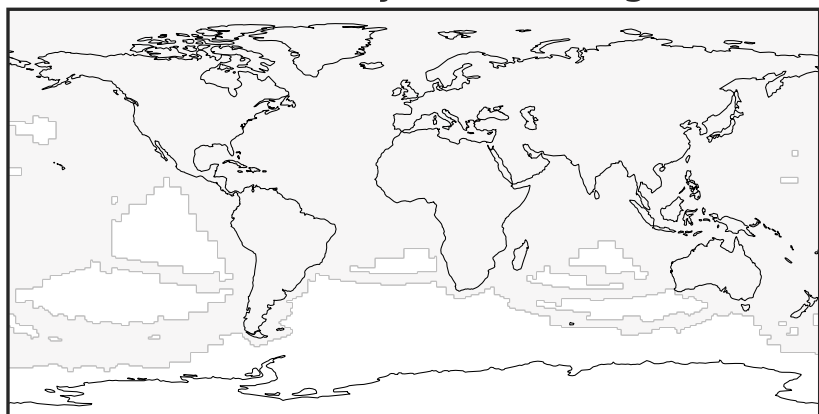
Zero throughout domain  
kg/m<sup>2</sup>/s

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



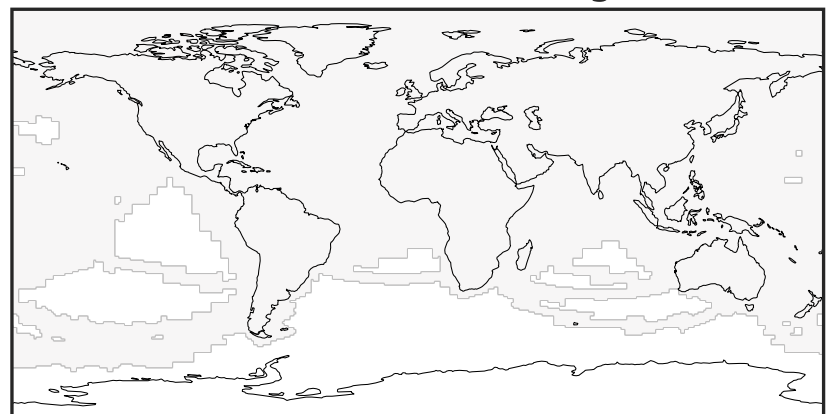
Zero throughout domain  
kg/m<sup>2</sup>/s

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

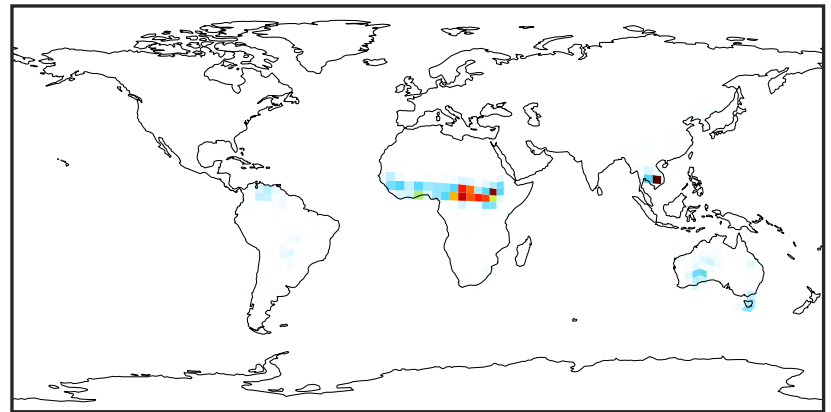
# EmisRCHO\_BioBurn (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



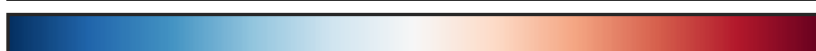
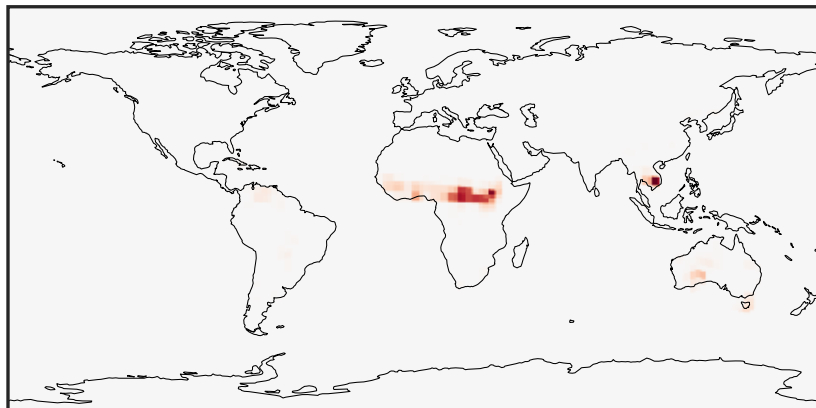
Zero throughput domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



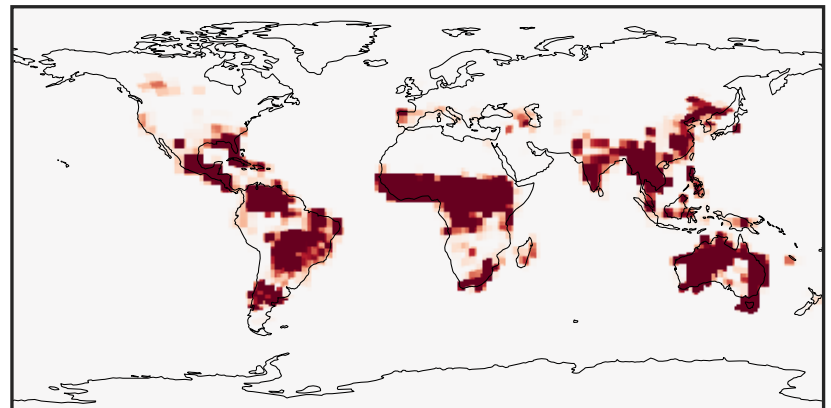
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s 1e-11

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



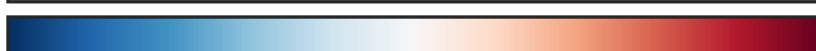
-3 0 3  
kg/m<sup>2</sup>/s 1e-11

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



-6 0 6  
kg/m<sup>2</sup>/s 1e-14

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



Undefined throughput domain  
unitless

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



Undefined throughput domain  
unitless

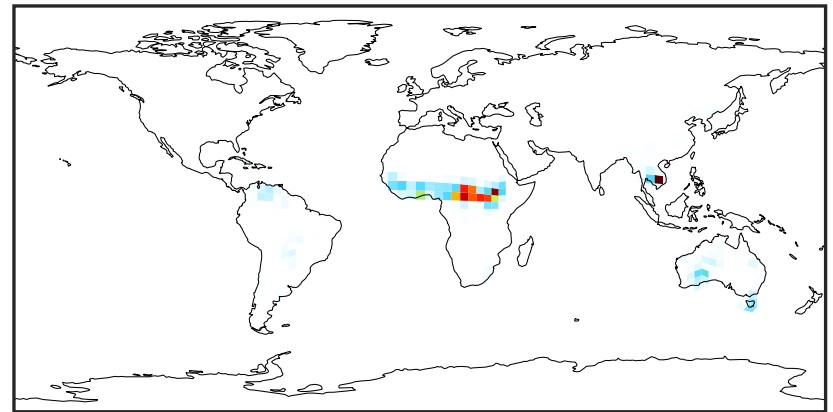
# EmisRCHO\_Total (Jan2019)

GCHP\_14.0.0 (Ref)  
c24



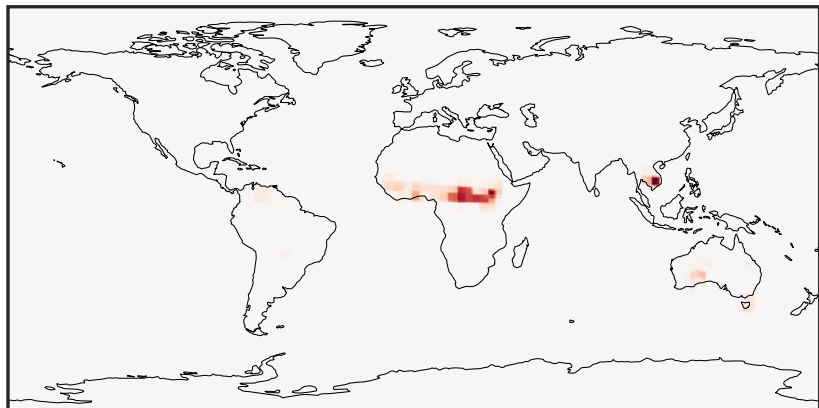
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s  $10^{-11}$

GCHP\_14.2.0 (Dev)  
c24



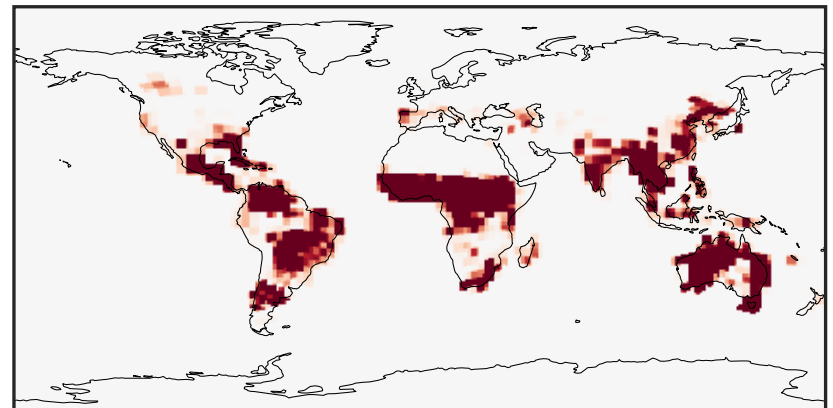
0.0 1.5 3.0 4.5  
kg/m<sup>2</sup>/s  $10^{-11}$

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



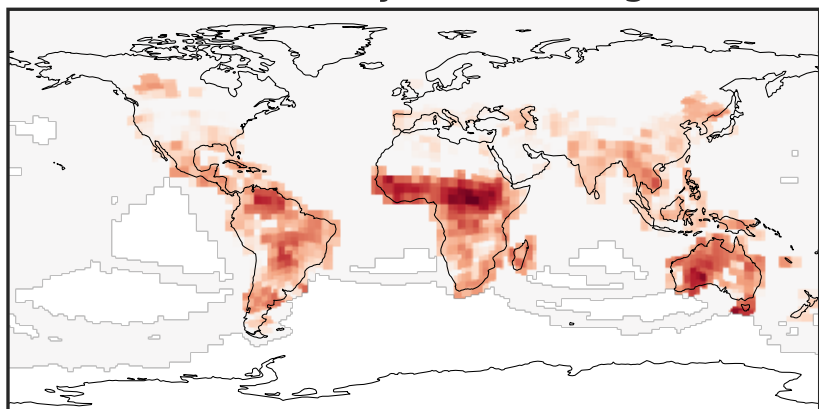
-3 0 3  
kg/m<sup>2</sup>/s  $10^{-11}$

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



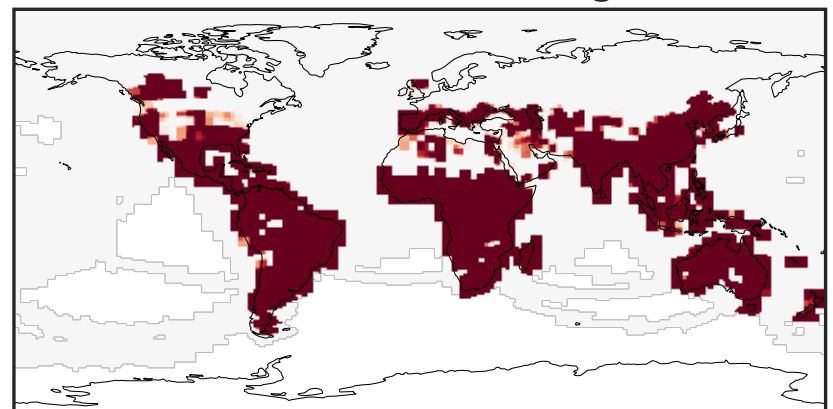
-6 0 6  
kg/m<sup>2</sup>/s  $10^{-14}$

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



$10^{-5}$   $10^{-3}$   $10^{-1}$  10 1000  $10^5$   
unitless

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



0.50 0.75 1.00 1.50 2.00  
unitless