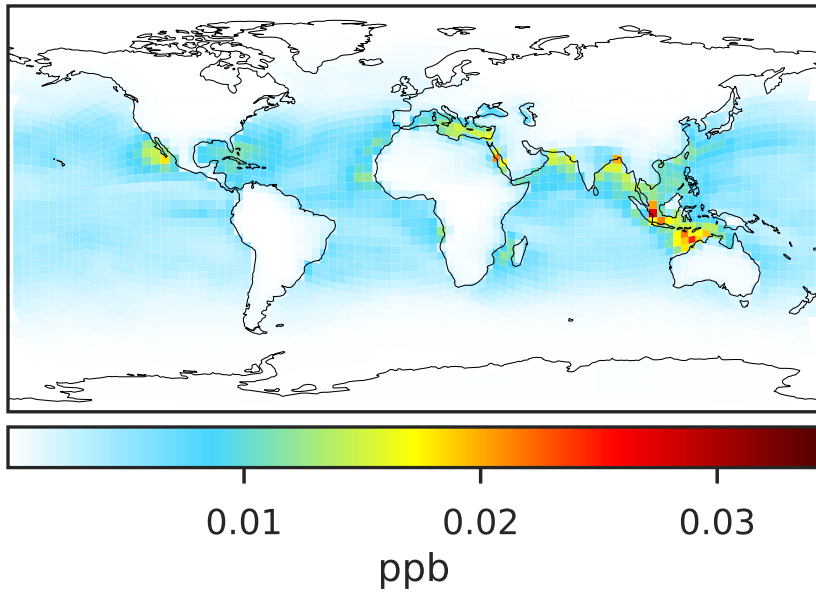
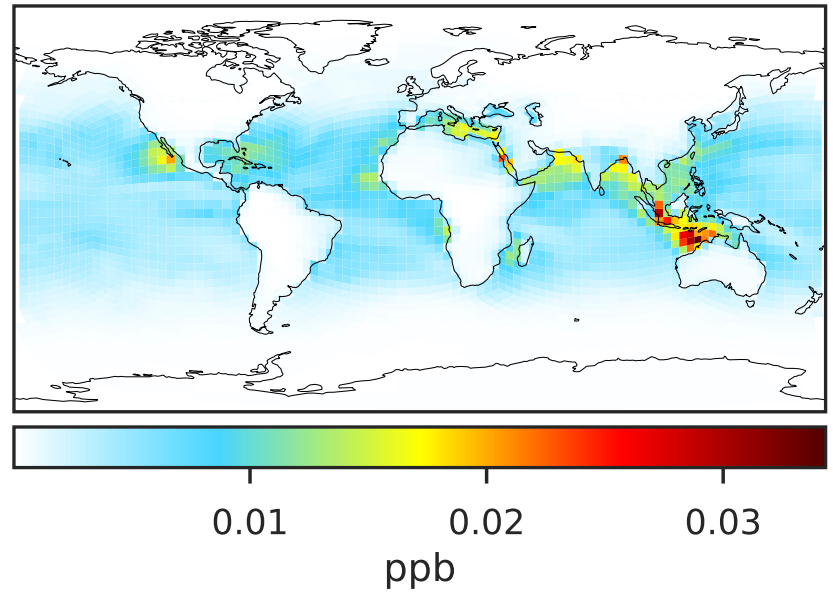


# SpeciesConcVV\_Iy (Oct2019)

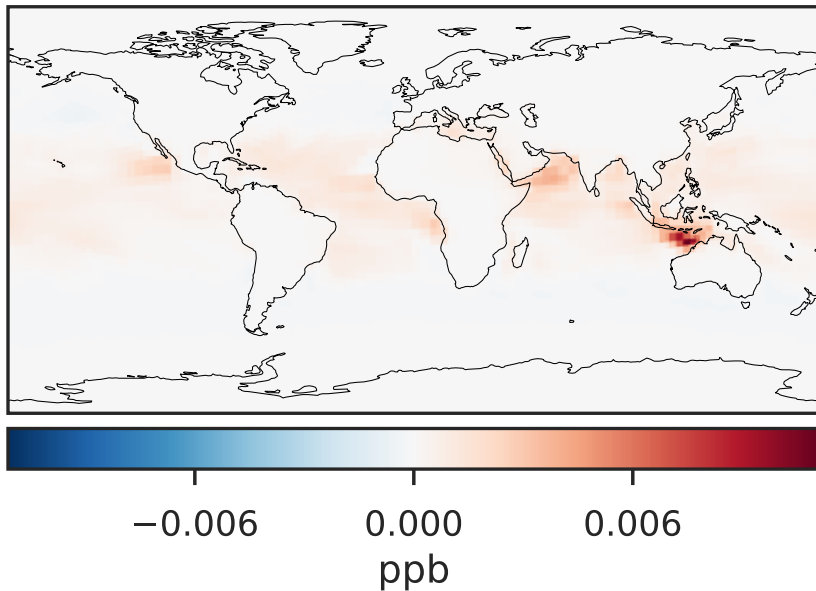
GCHP\_14.0.0 (Ref)  
c24



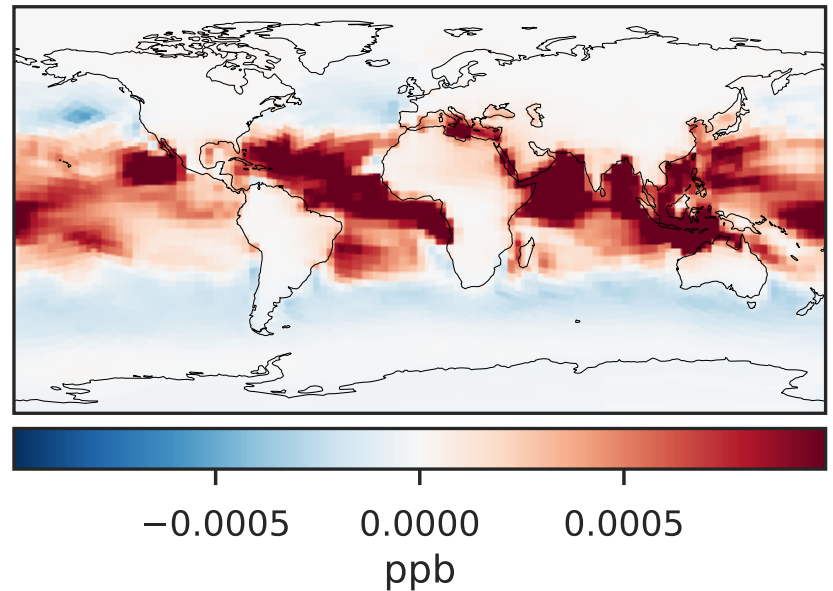
GCHP\_14.2.0 (Dev)  
c24



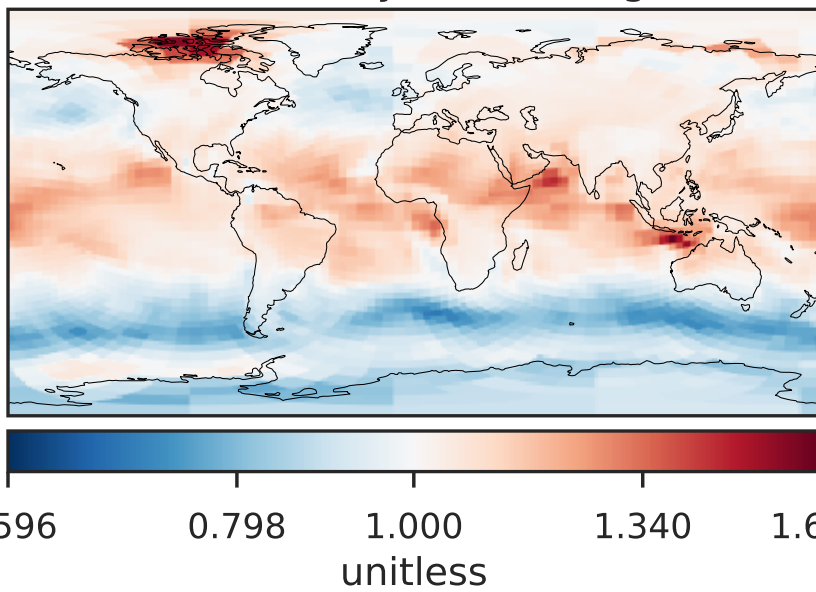
Difference (1x1.25)  
Dev - Ref, Dynamic Range



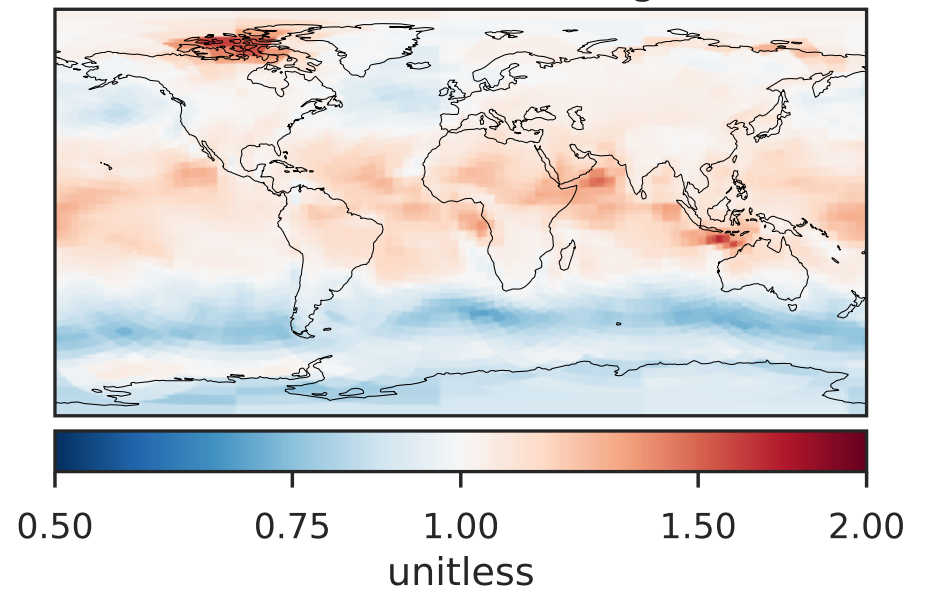
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

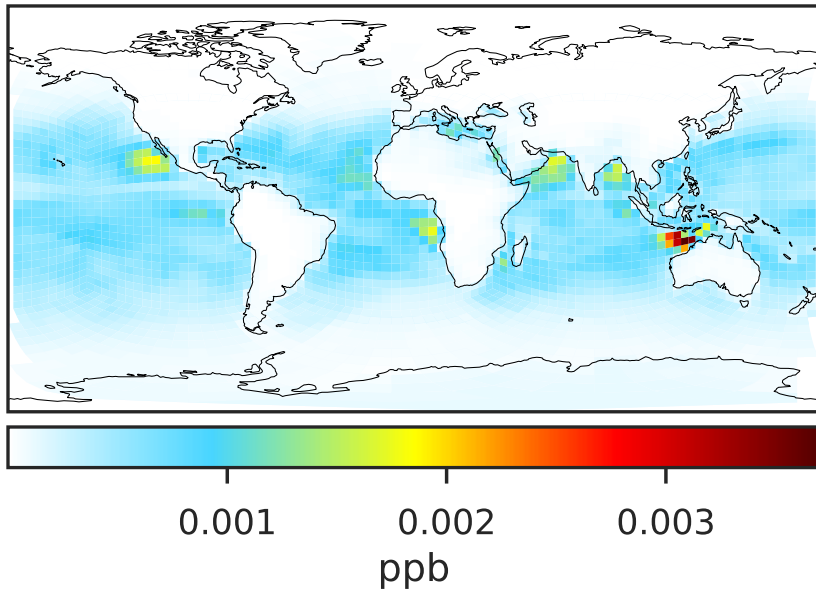


Ratio (1x1.25)  
Dev/Ref, Fixed Range

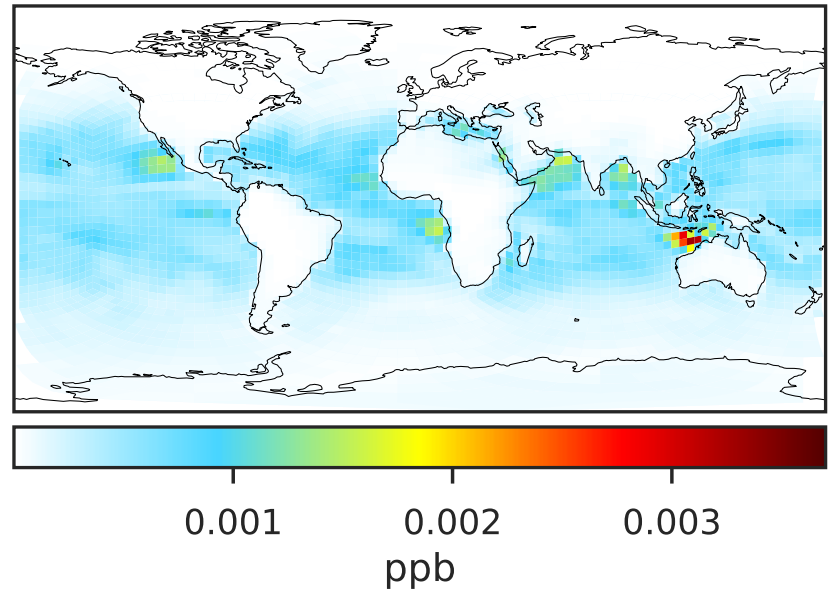


# SpeciesConcVV\_IxOy (Oct2019)

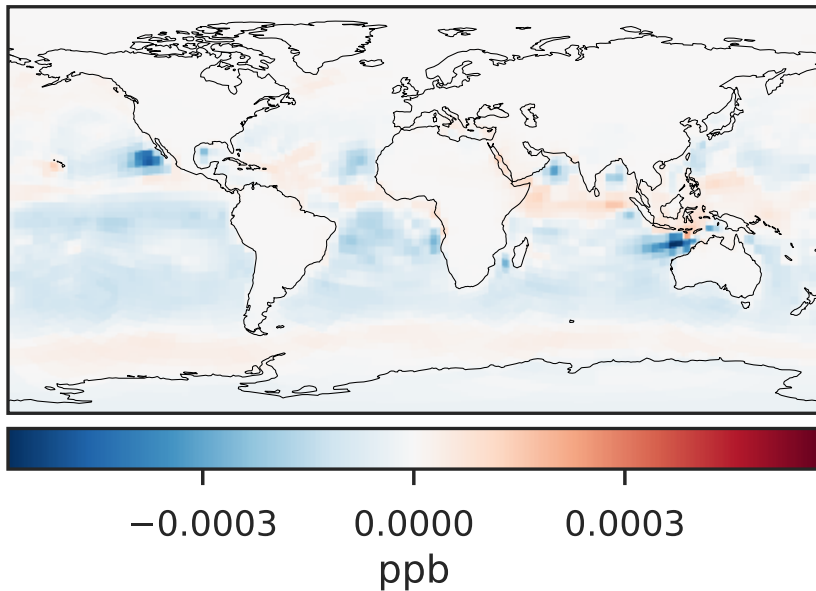
GCHP\_14.0.0 (Ref)  
c24



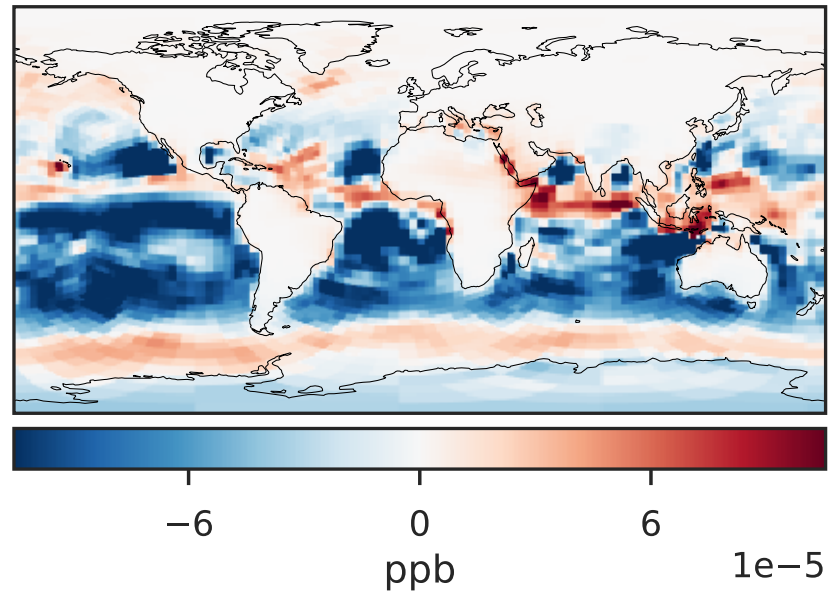
GCHP\_14.2.0 (Dev)  
c24



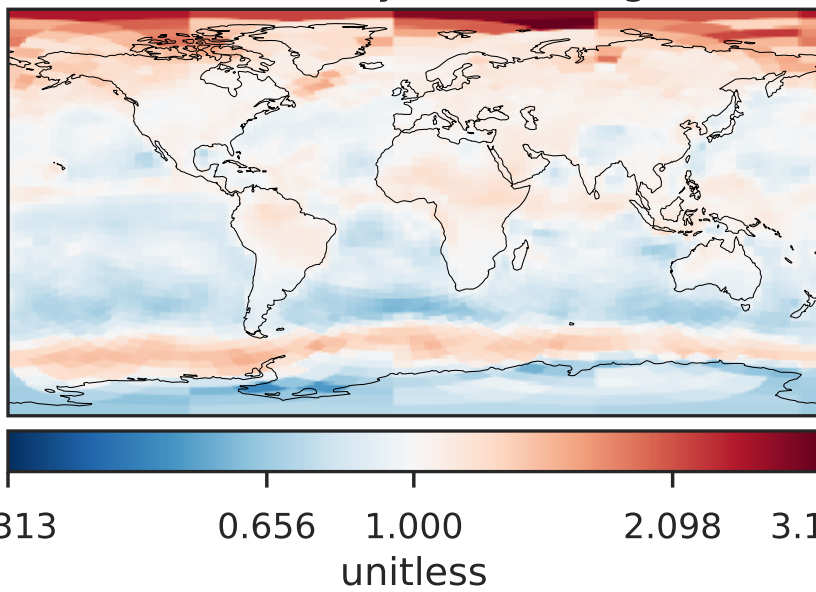
Difference (1x1.25)  
Dev - Ref, Dynamic Range



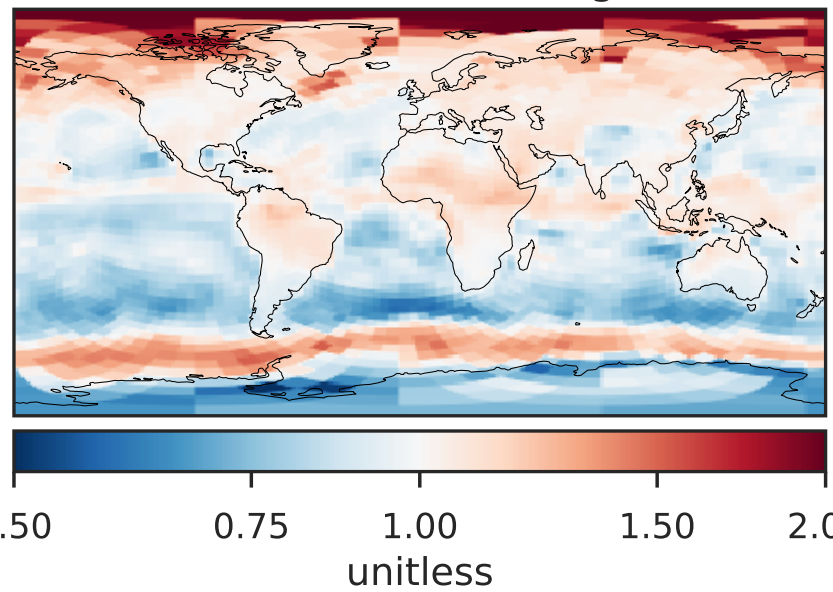
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

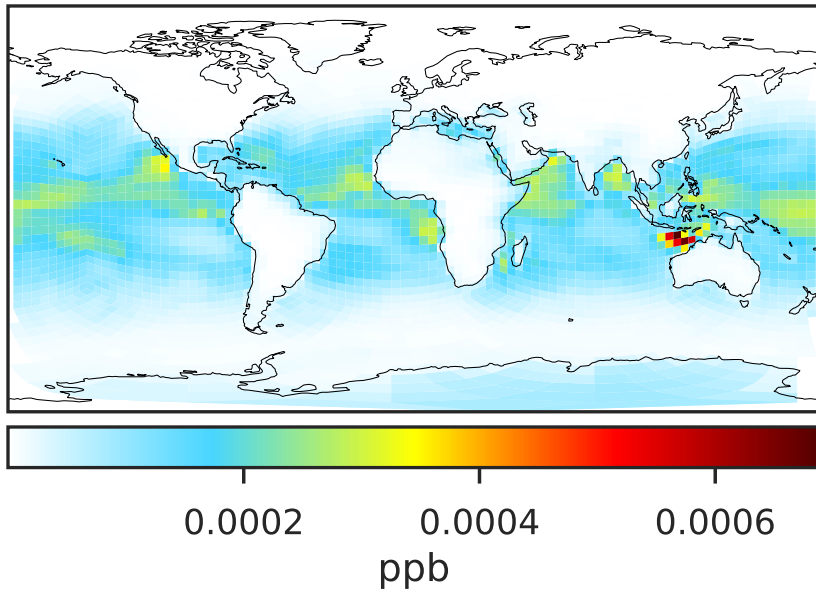


Ratio (1x1.25)  
Dev/Ref, Fixed Range

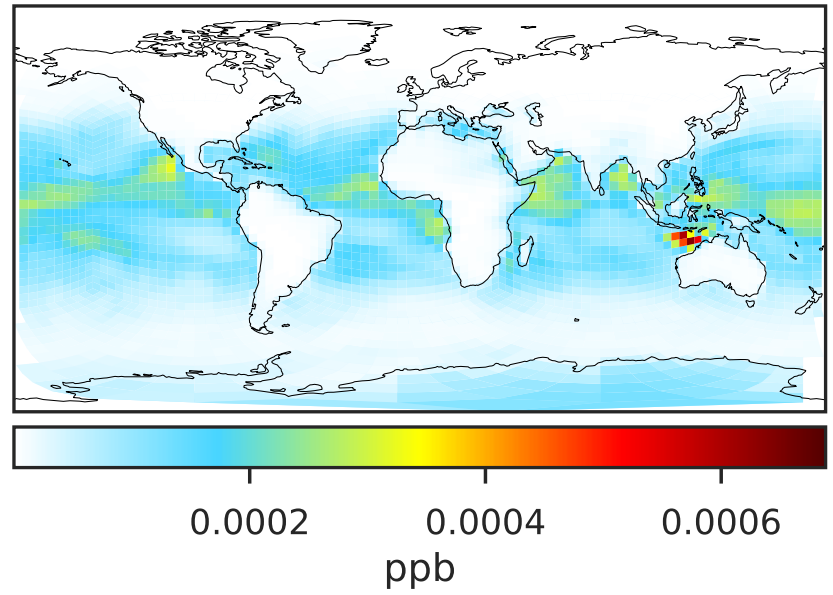


# SpeciesConcVW\_I (Oct2019)

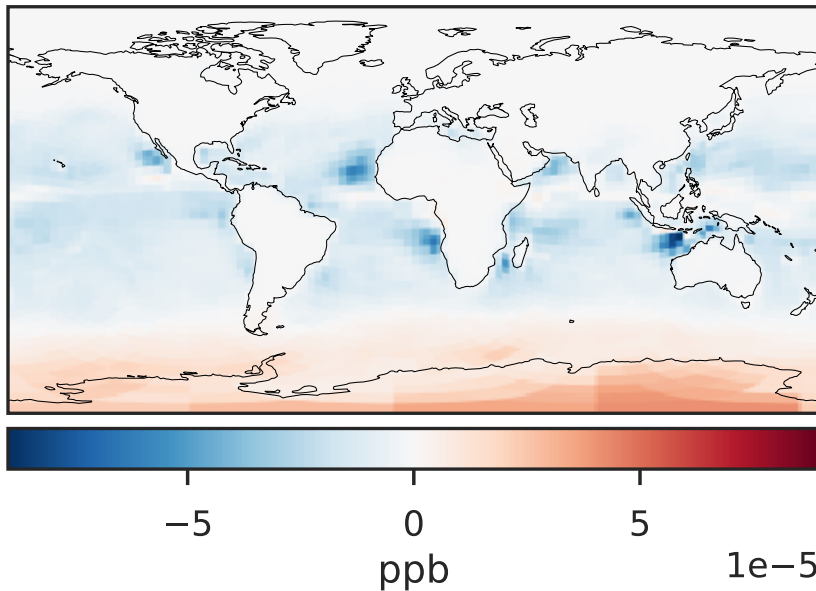
GCHP\_14.0.0 (Ref)  
c24



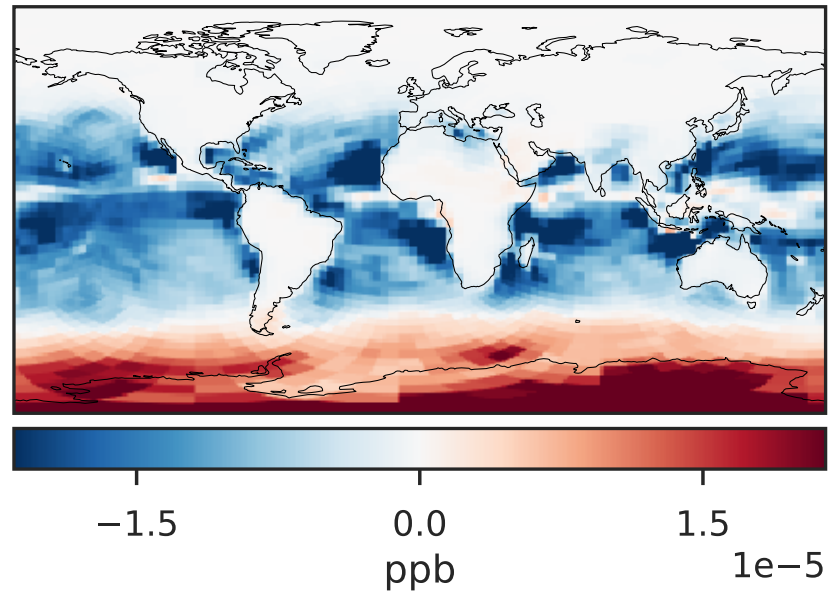
GCHP\_14.2.0 (Dev)  
c24



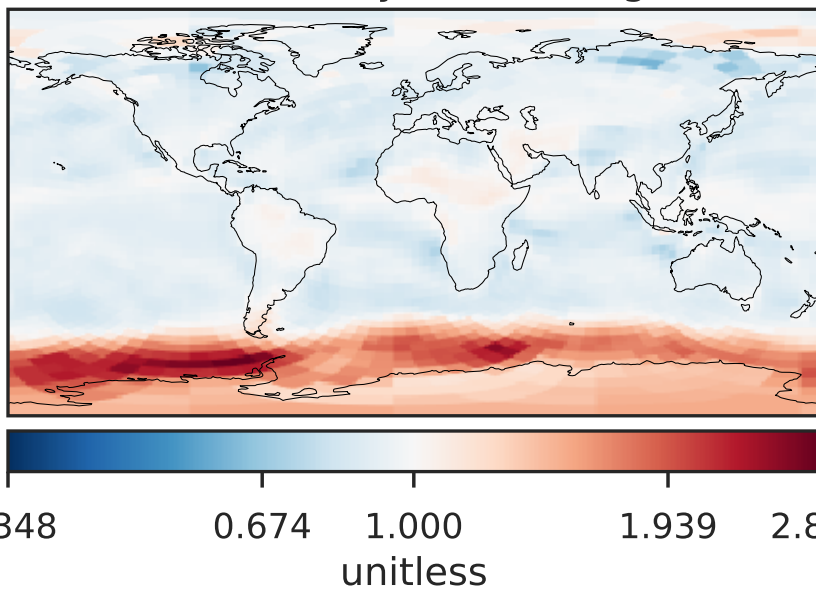
Difference (1x1.25)  
Dev - Ref, Dynamic Range



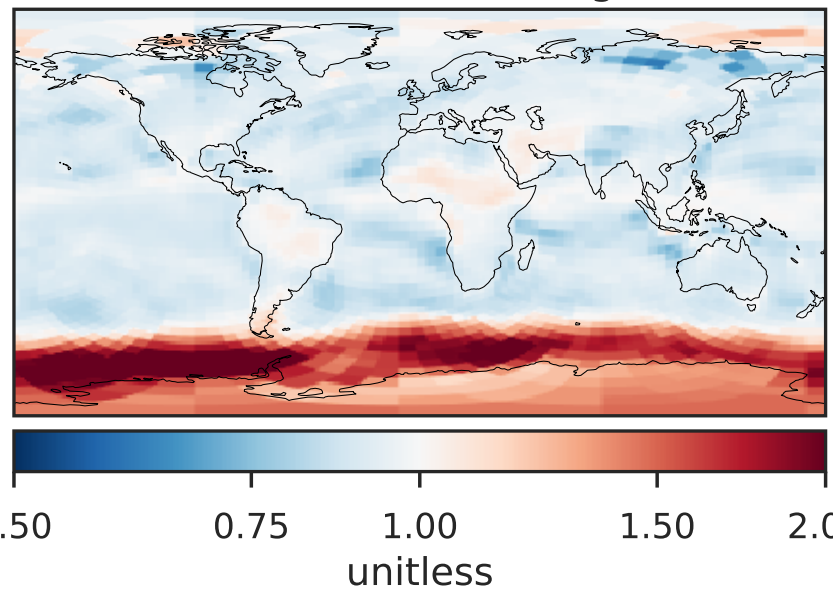
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

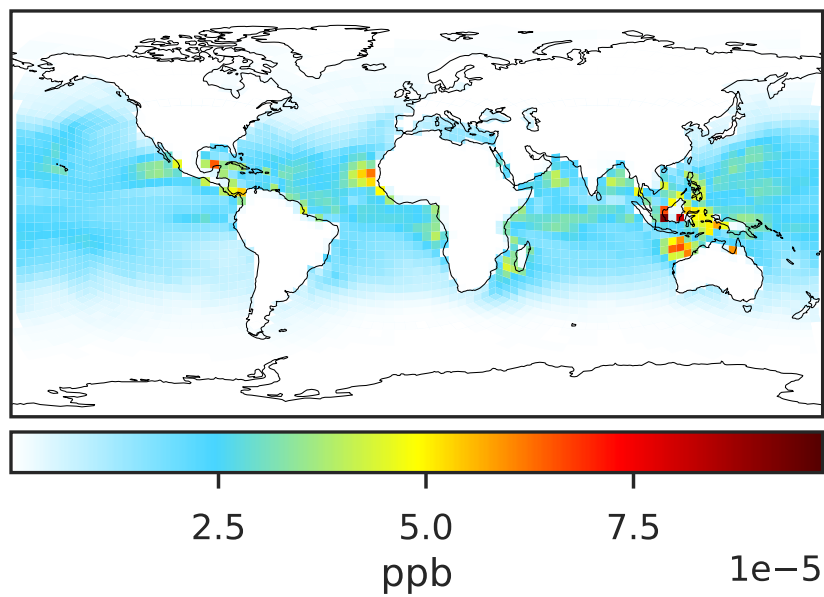


Ratio (1x1.25)  
Dev/Ref, Fixed Range

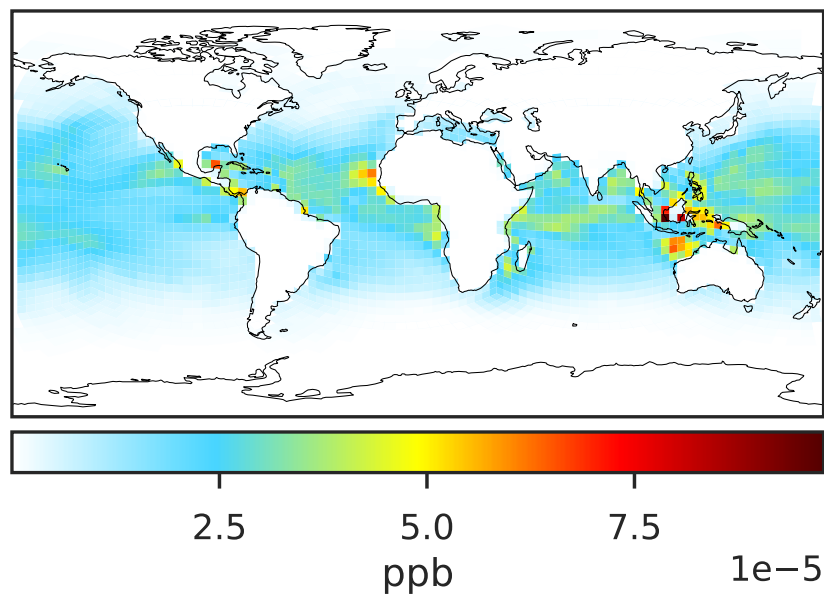


# SpeciesConcVV\_I2 (Oct2019)

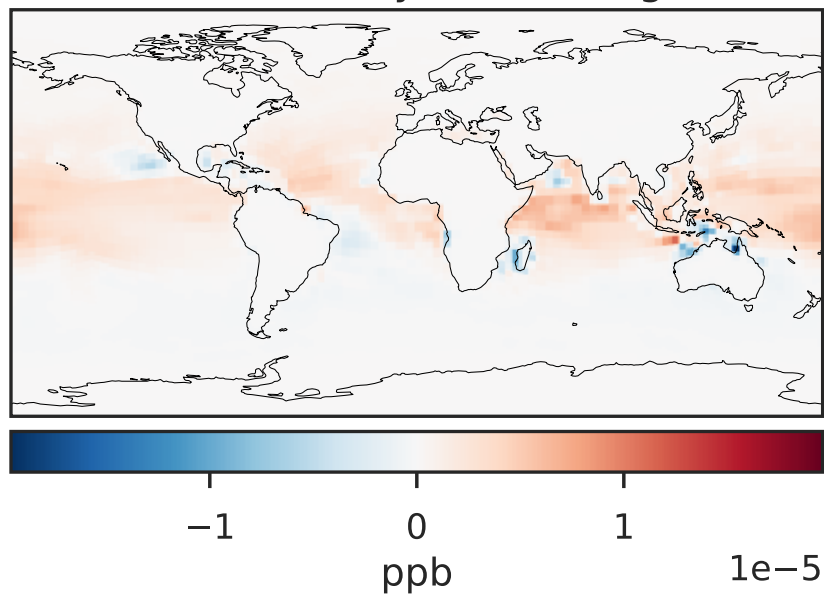
GCHP\_14.0.0 (Ref)  
c24



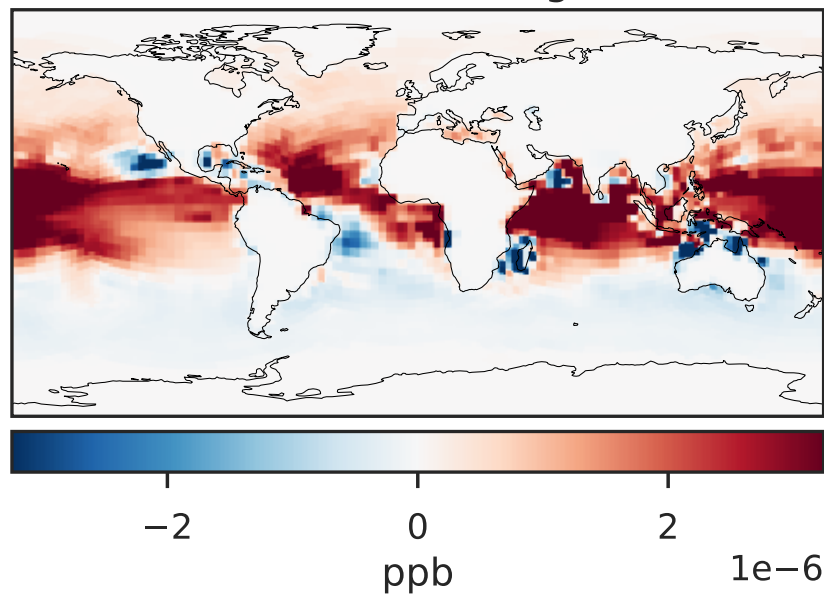
GCHP\_14.2.0 (Dev)  
c24



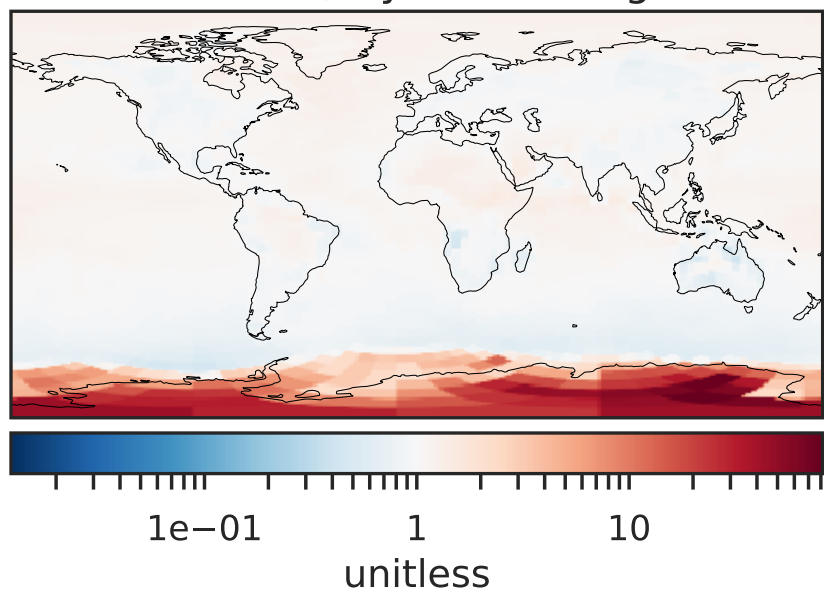
Difference (1x1.25)  
Dev - Ref, Dynamic Range



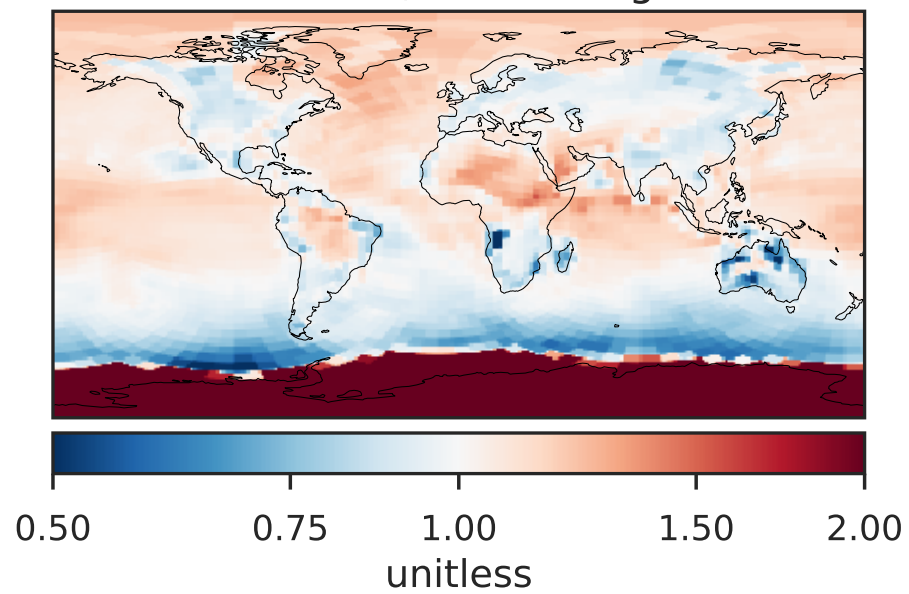
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

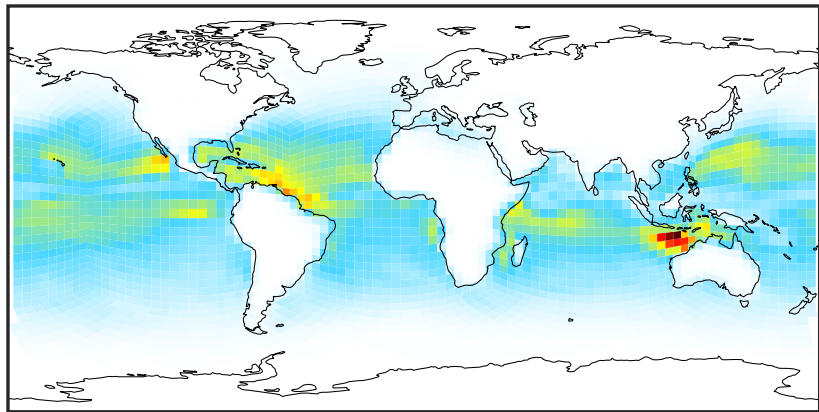


Ratio (1x1.25)  
Dev/Ref, Fixed Range



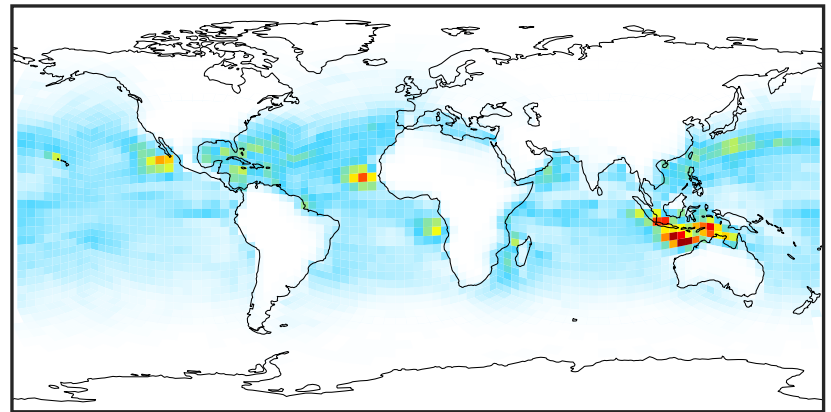
# SpeciesConcVV\_IBr (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



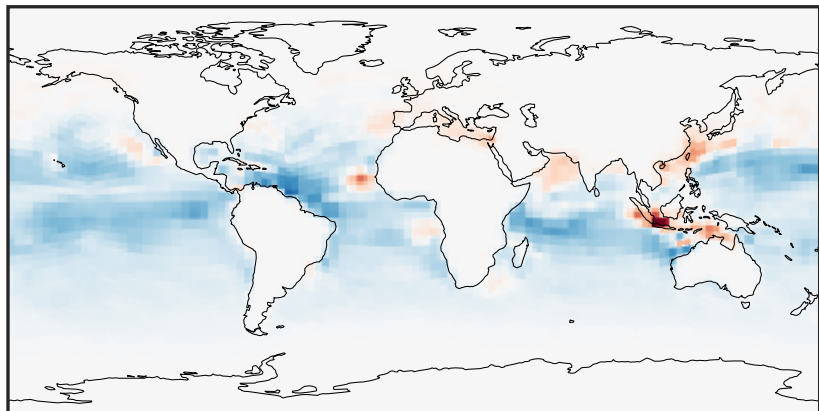
0.00008 0.00016 0.00024  
ppb

GCHP\_14.2.0 (Dev)  
c24



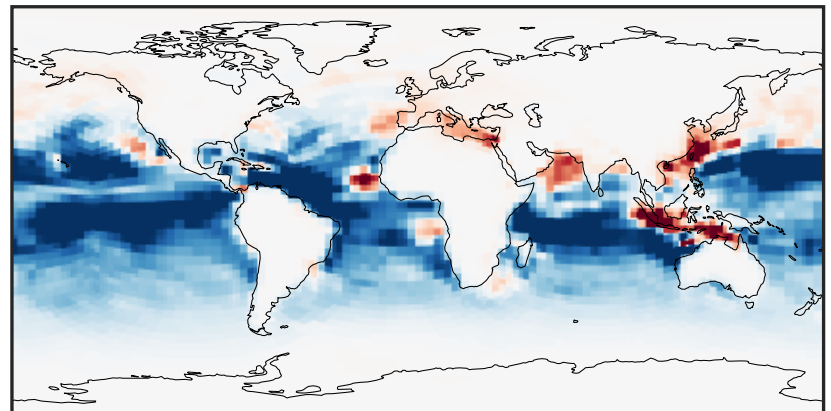
0.00008 0.00016 0.00024  
ppb

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



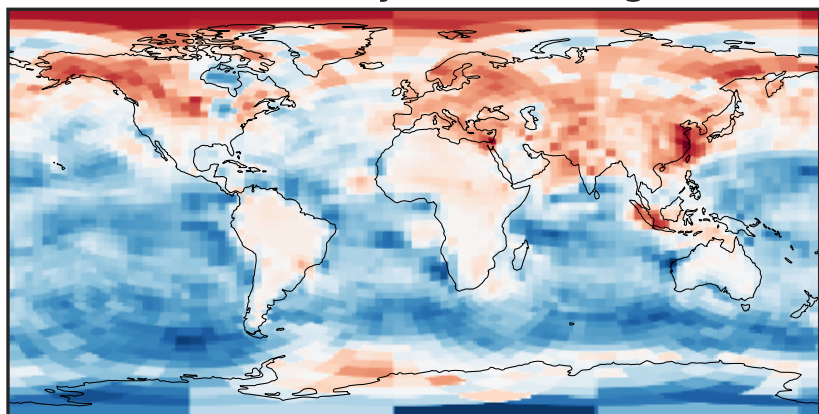
-8 0 8  
ppb  $1e-5$

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



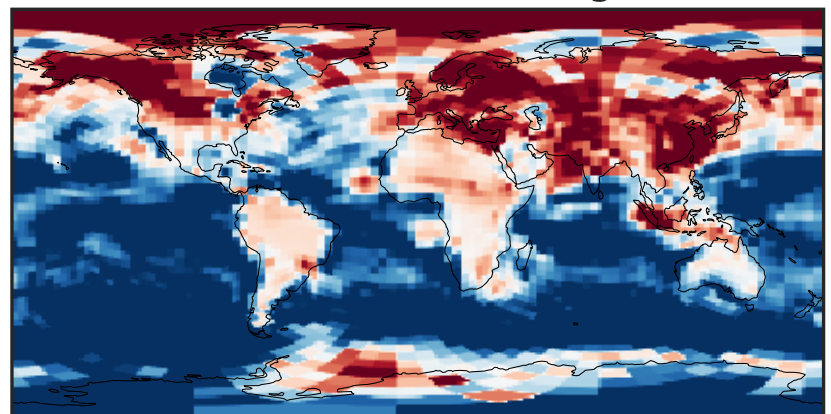
-3 0 3  
ppb  $1e-5$

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



0.164 0.582 1.000 3.544 6.089  
unitless

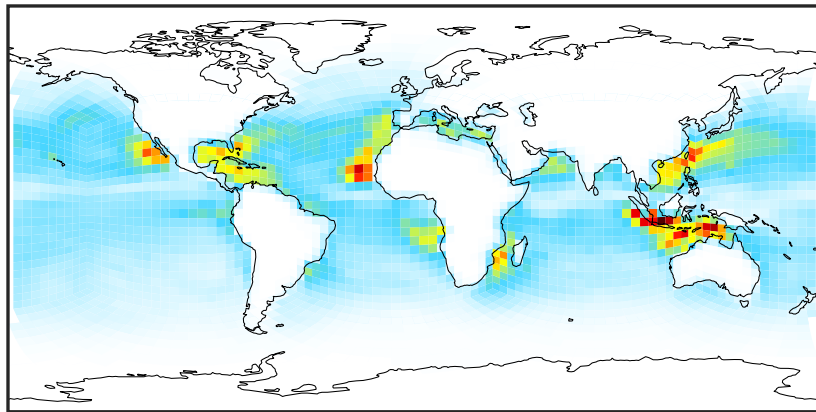
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

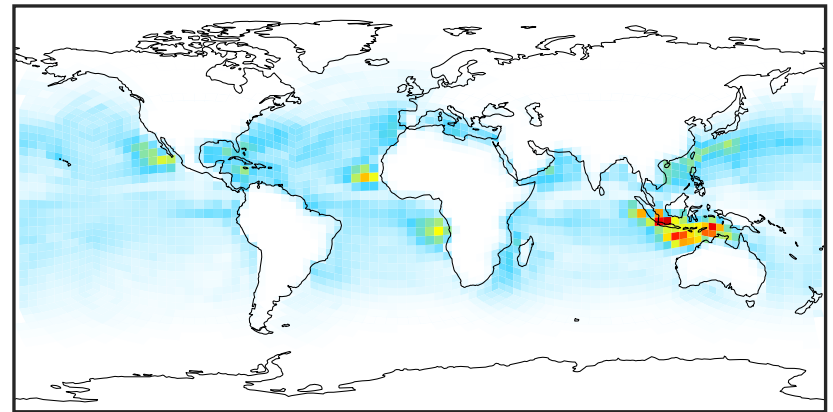
# SpeciesConcVV\_ICI (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



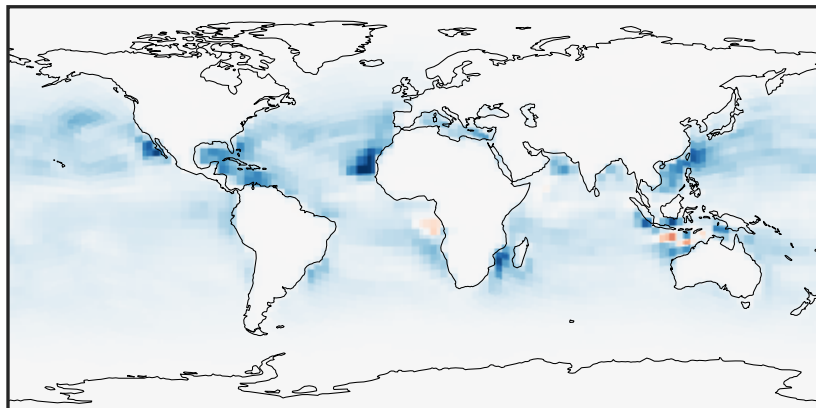
0.001 0.002 0.003  
ppb

GCHP\_14.2.0 (Dev)  
c24



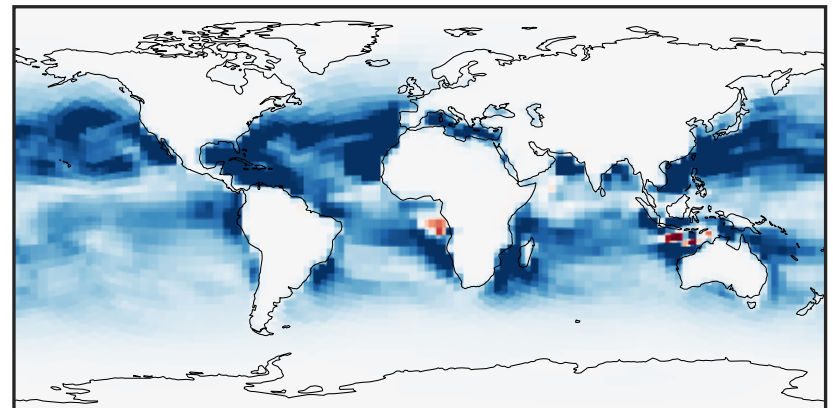
0.001 0.002 0.003  
ppb

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



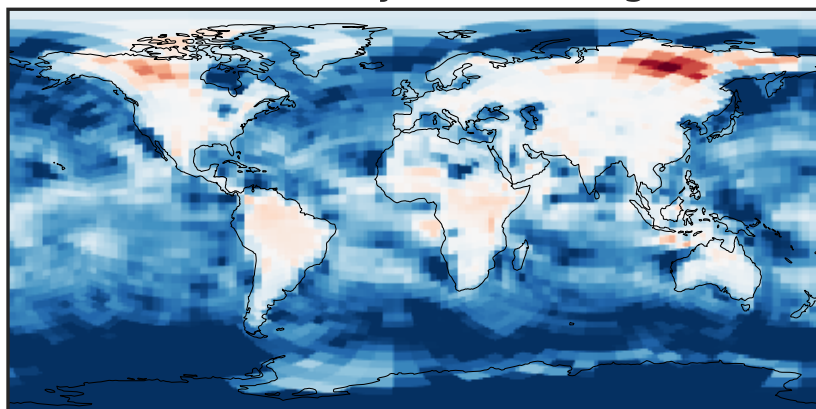
-0.001 0.000 0.001  
ppb

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



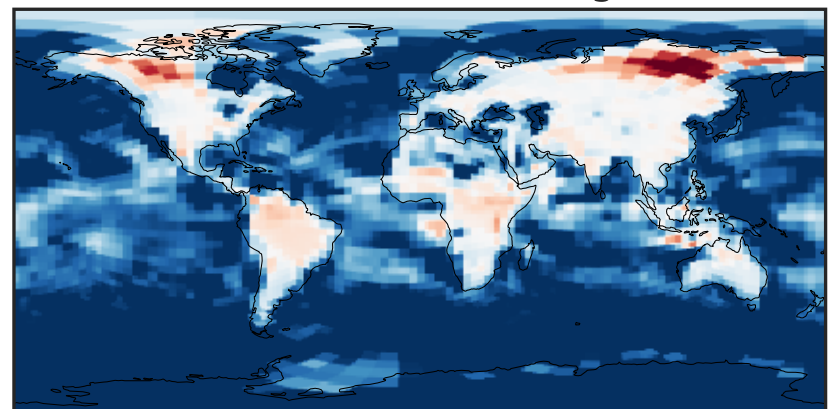
-0.00025 0.00000 0.00025  
ppb

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



0.355 0.677 1.000 1.909 2.817  
unitless

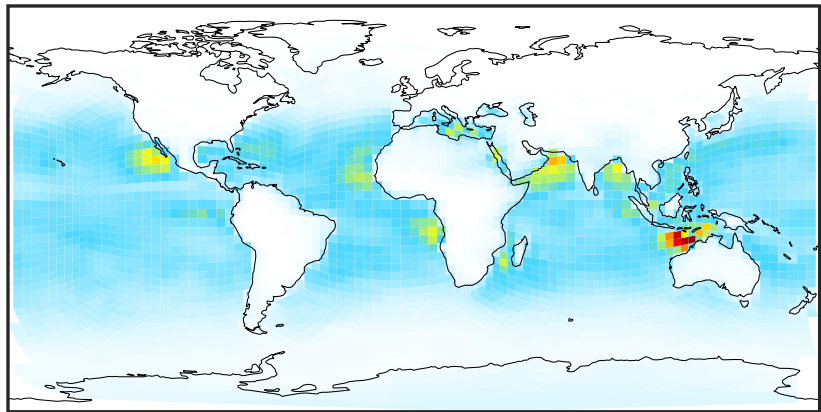
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

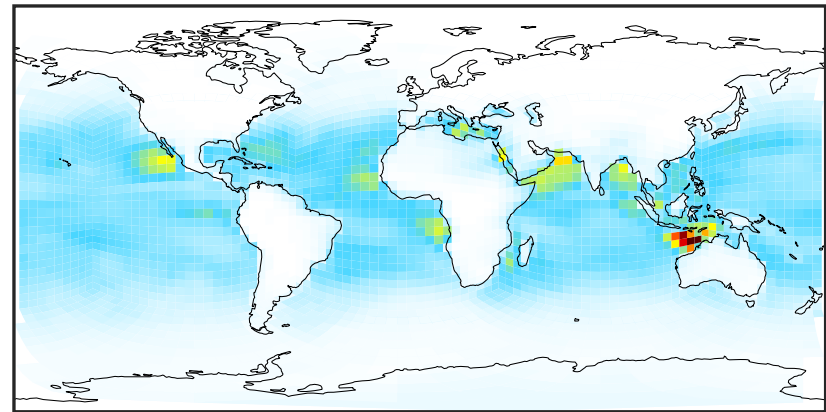
# SpeciesConcVV\_IO (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



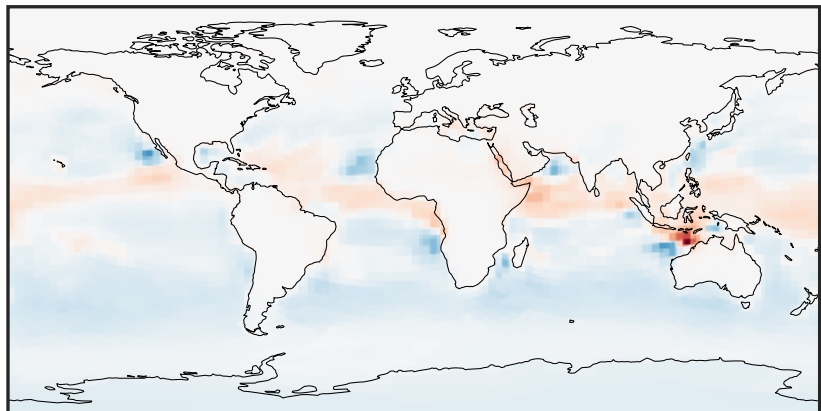
0.0008 0.0016 0.0024  
ppb

GCHP\_14.2.0 (Dev)  
c24



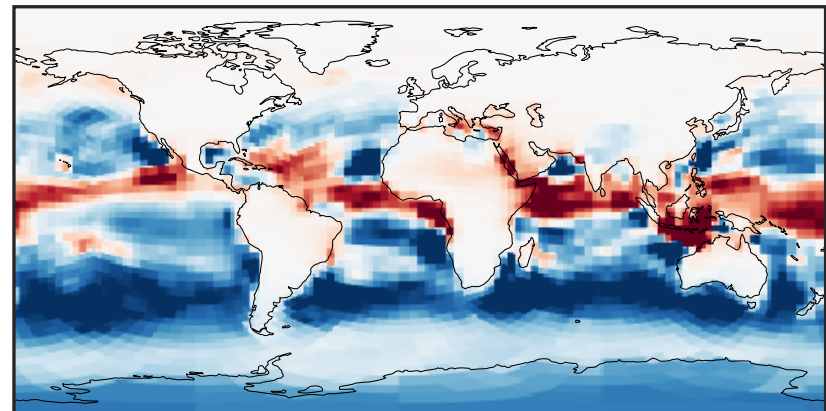
0.0008 0.0016 0.0024  
ppb

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



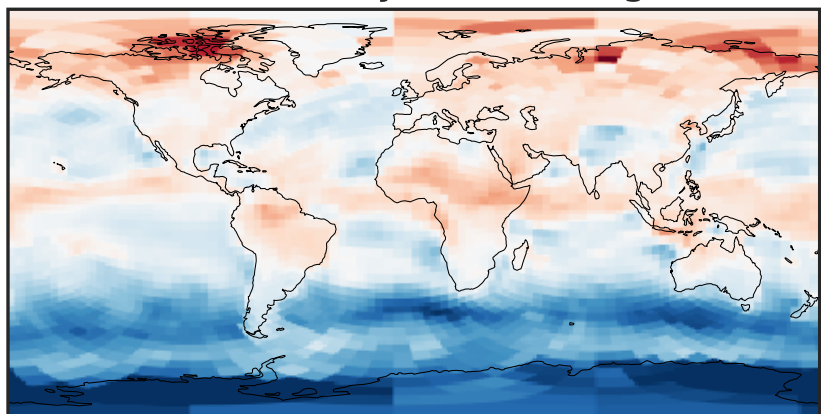
-0.0002 0.0000 0.0002  
ppb

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



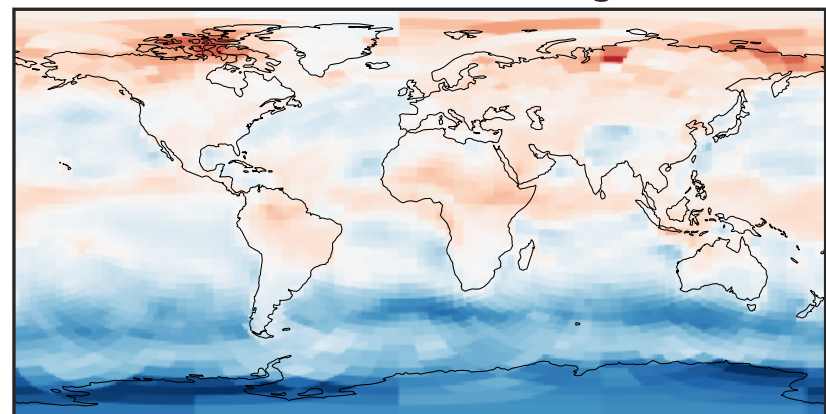
-3 0 3  
ppb 1e-5

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



0.586 0.793 1.000 1.353 1.706  
unitless

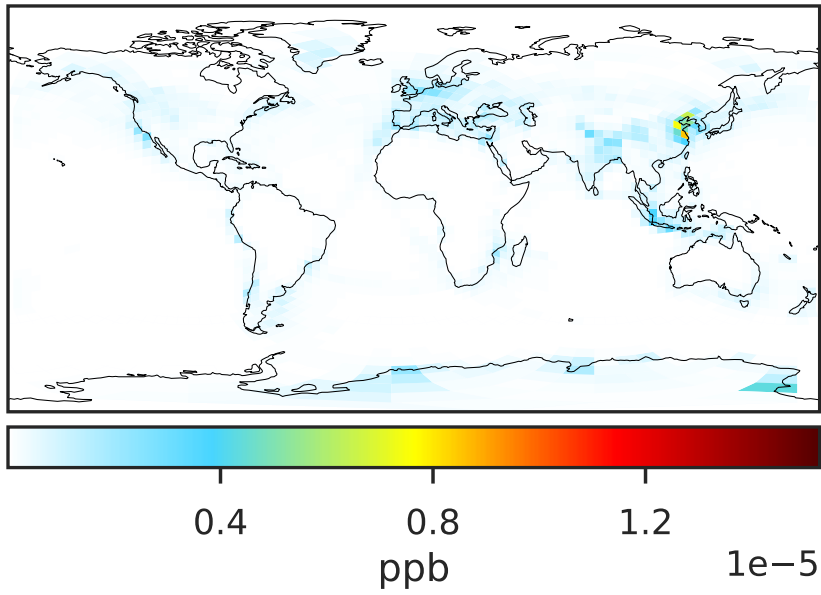
Ratio (1x1.25)  
Dev/Ref, Fixed Range



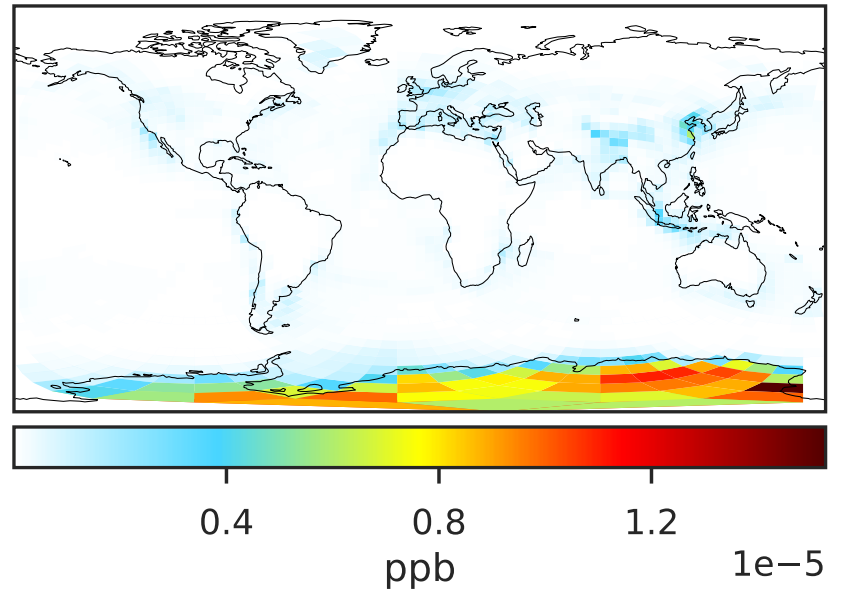
0.50 0.75 1.00 1.50 2.00  
unitless

# SpeciesConcVV\_IONO (Oct2019)

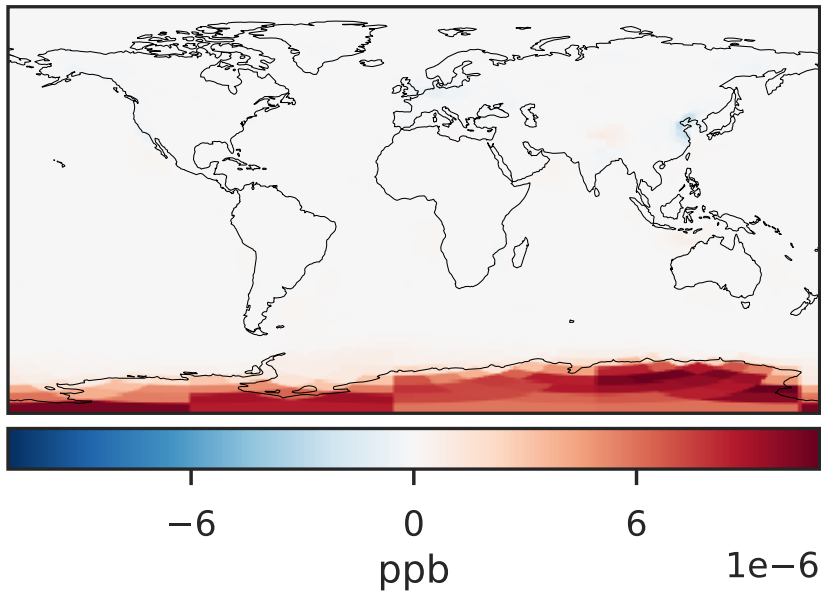
GCHP\_14.0.0 (Ref)  
c24



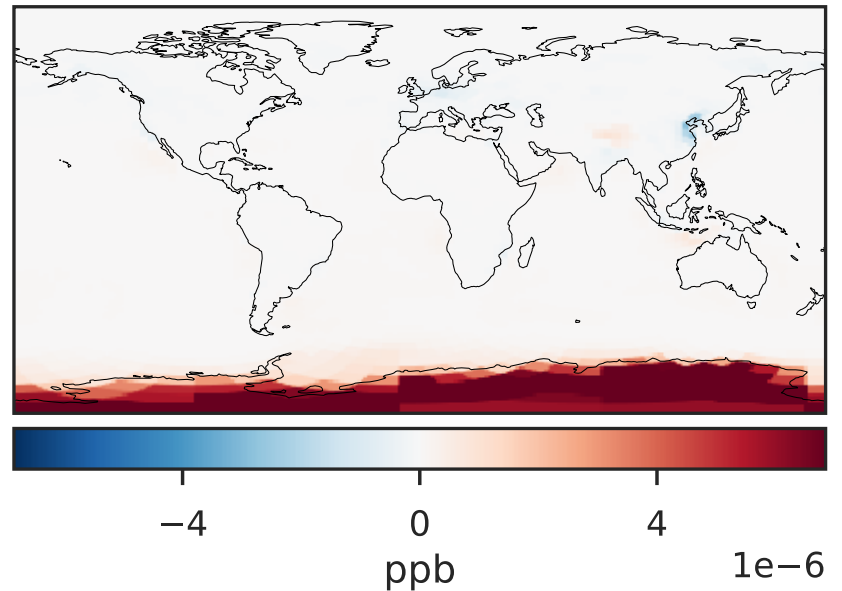
GCHP\_14.2.0 (Dev)  
c24



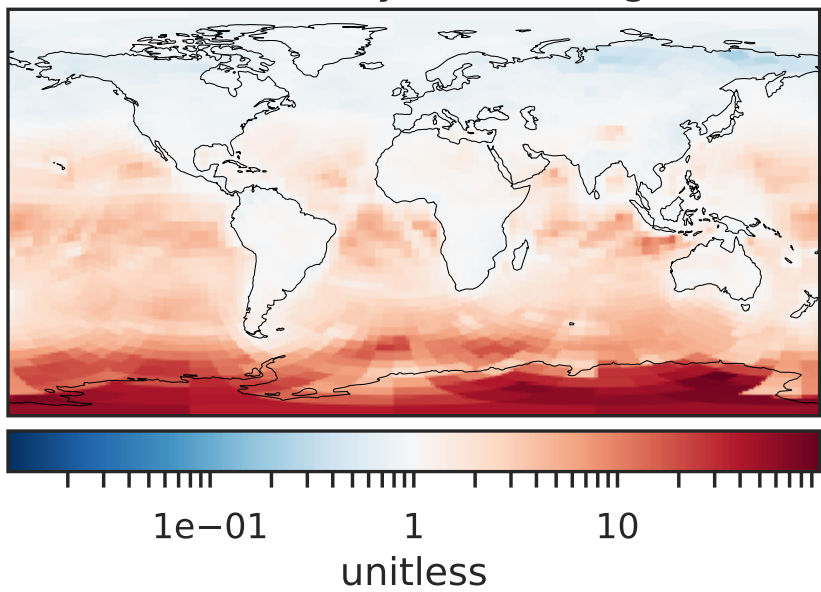
Difference (1x1.25)  
Dev - Ref, Dynamic Range



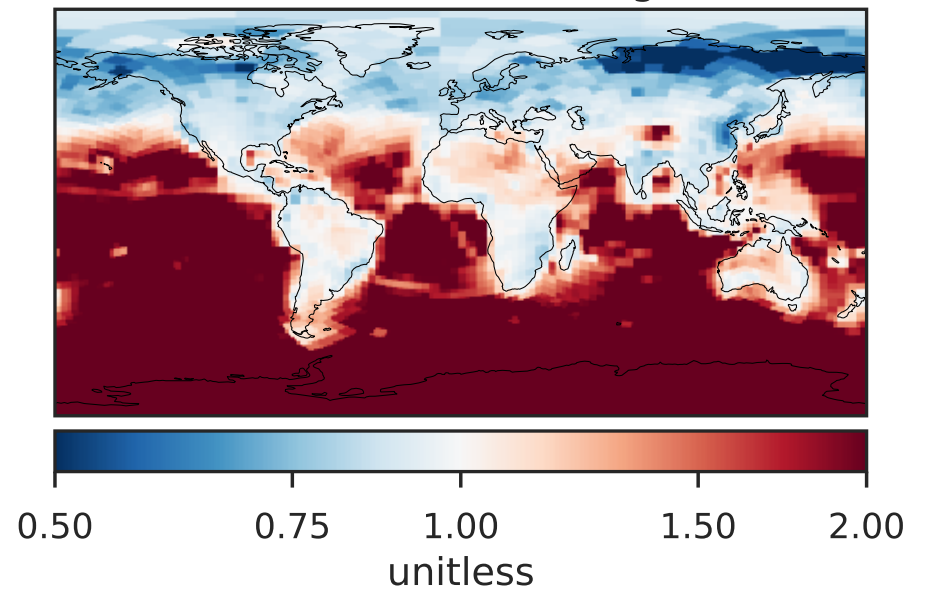
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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



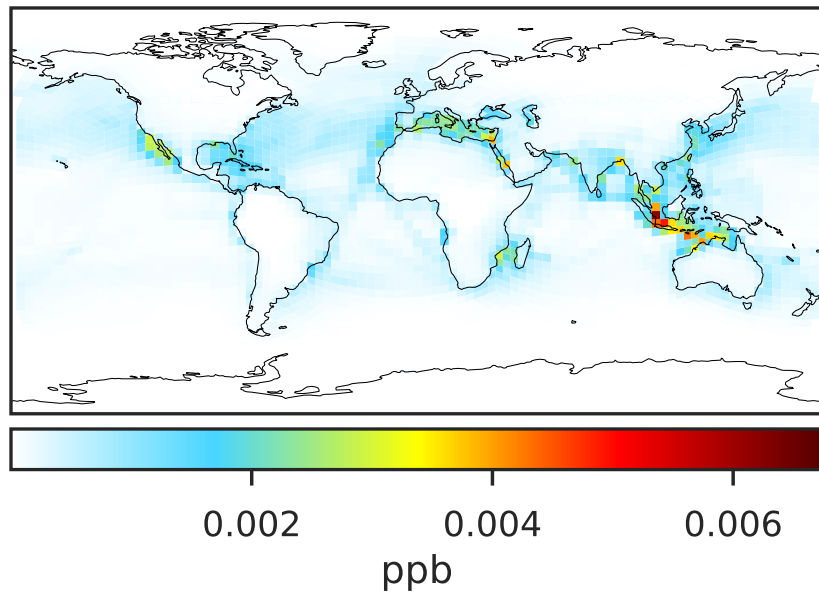
Ratio (1x1.25)  
Dev/Ref, Fixed Range



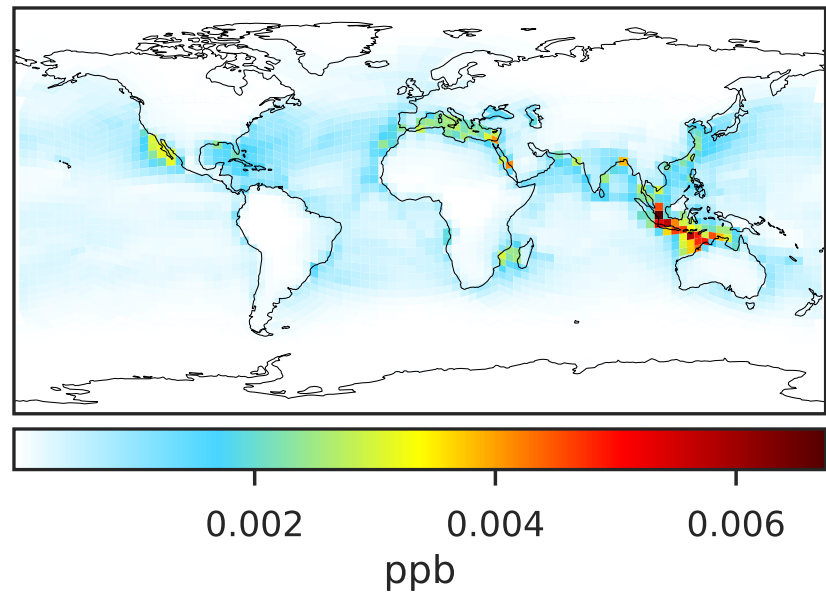


# SpeciesConcVV\_IONO2 (Oct2019)

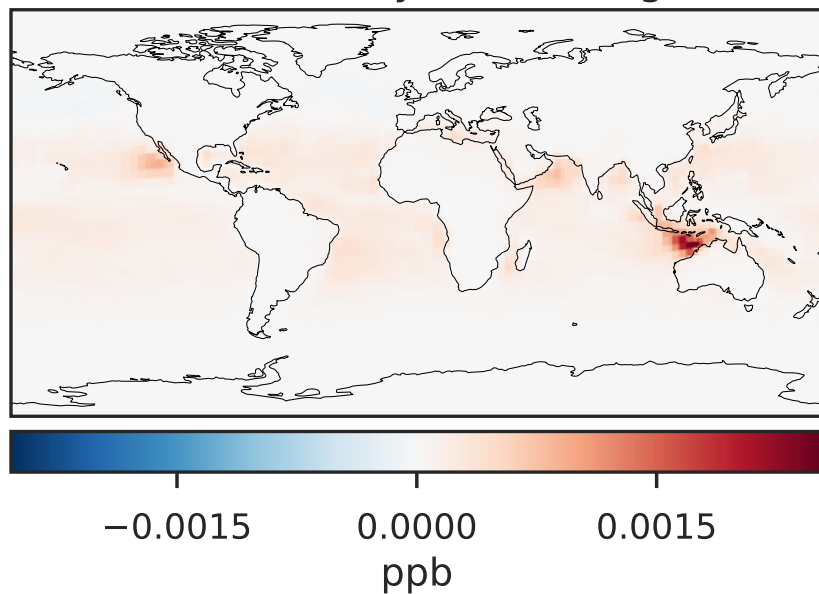
GCHP\_14.0.0 (Ref)  
c24



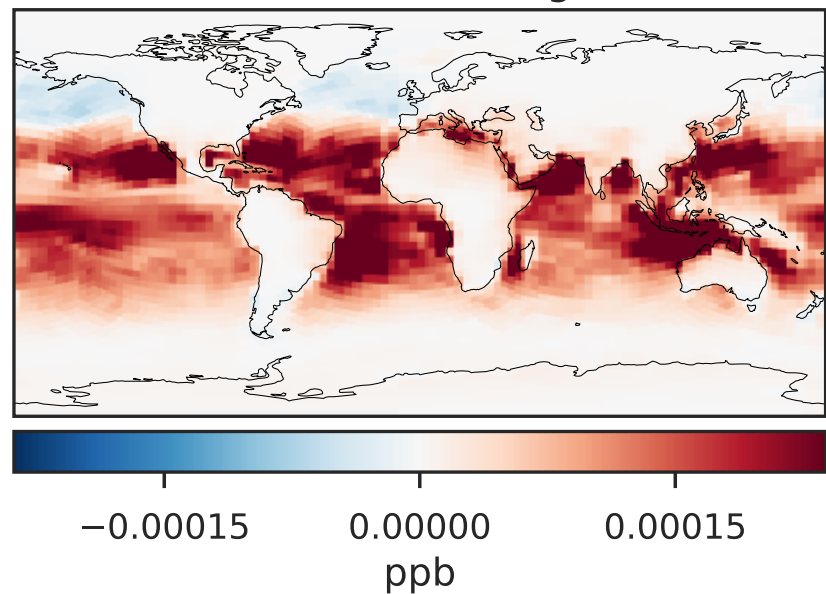
GCHP\_14.2.0 (Dev)  
c24



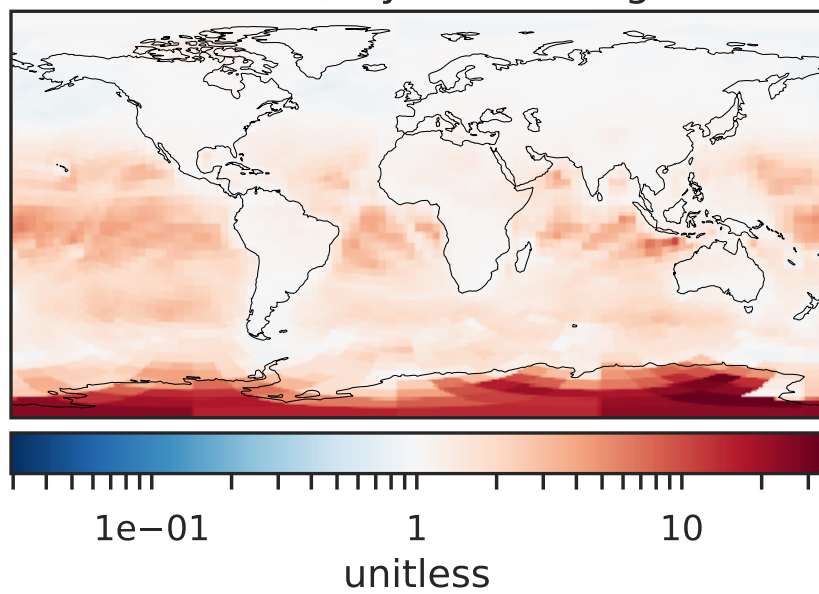
Difference (1x1.25)  
Dev - Ref, Dynamic Range



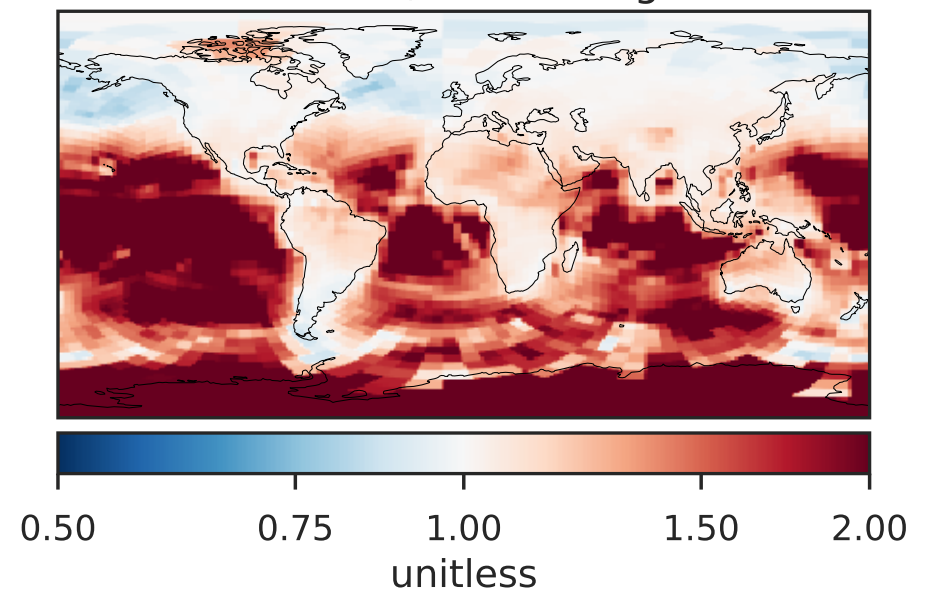
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

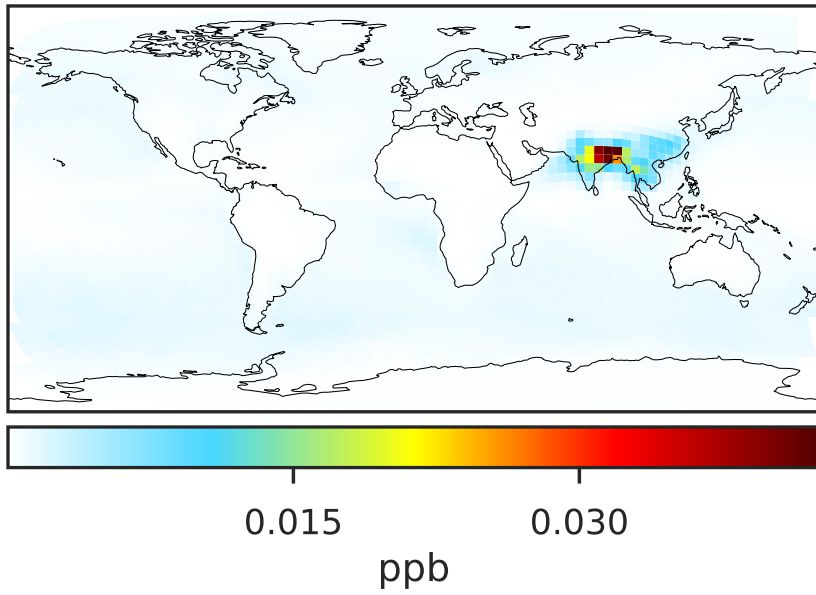


Ratio (1x1.25)  
Dev/Ref, Fixed Range

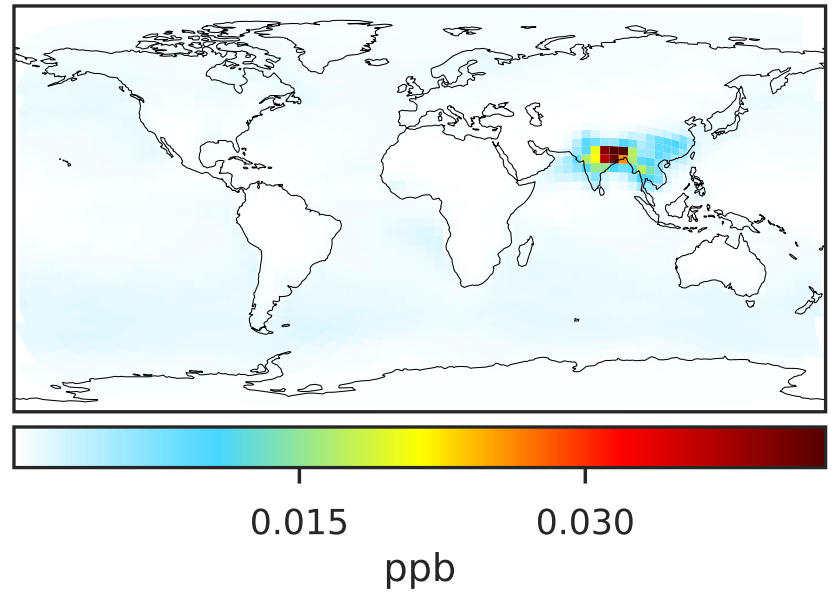


# SpeciesConcVV\_CH3I (Oct2019)

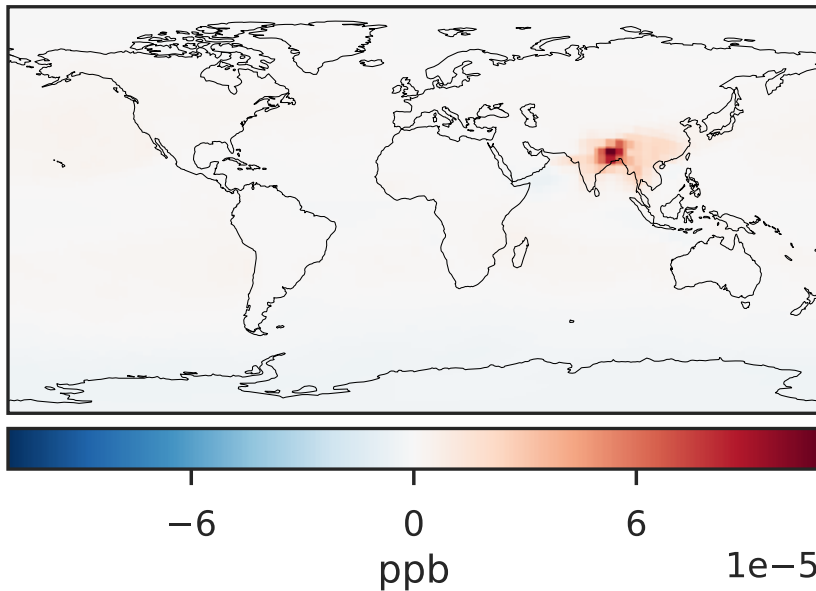
GCHP\_14.0.0 (Ref)  
c24



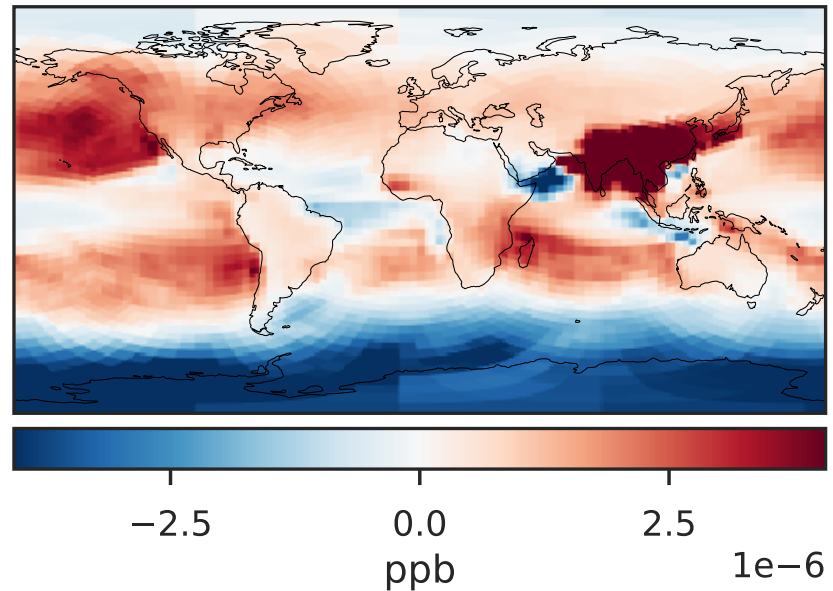
GCHP\_14.2.0 (Dev)  
c24



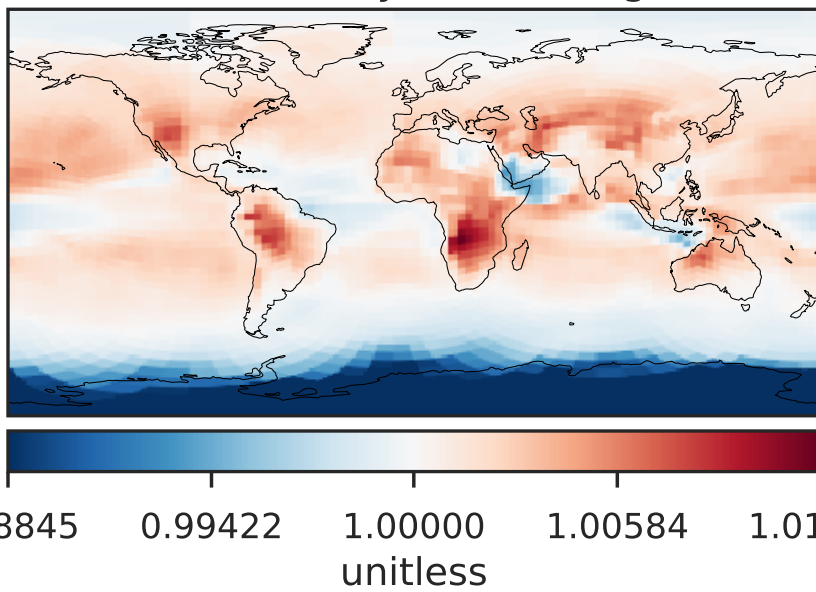
Difference (1x1.25)  
Dev - Ref, Dynamic Range



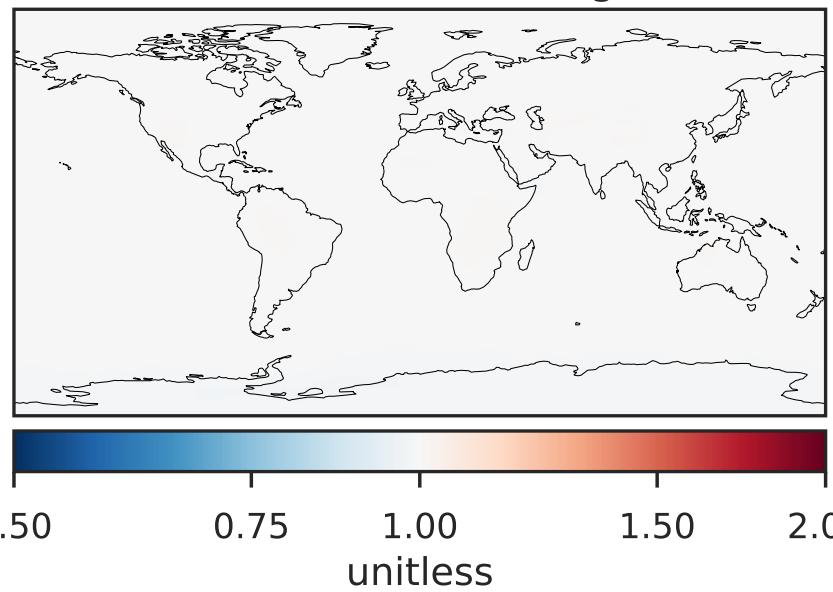
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



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

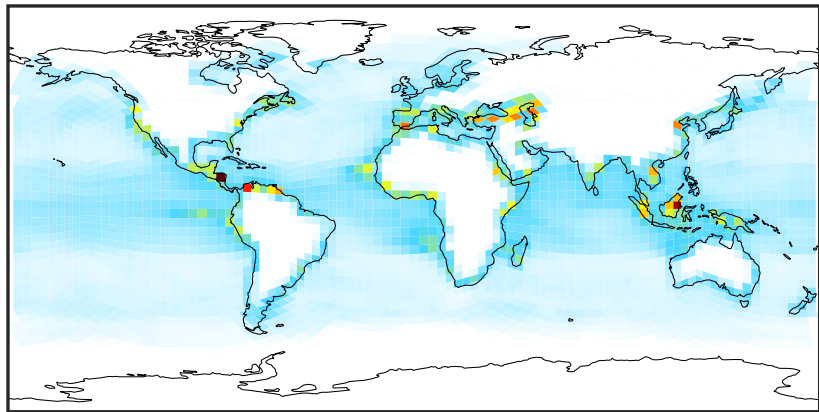


Ratio (1x1.25)  
Dev/Ref, Fixed Range



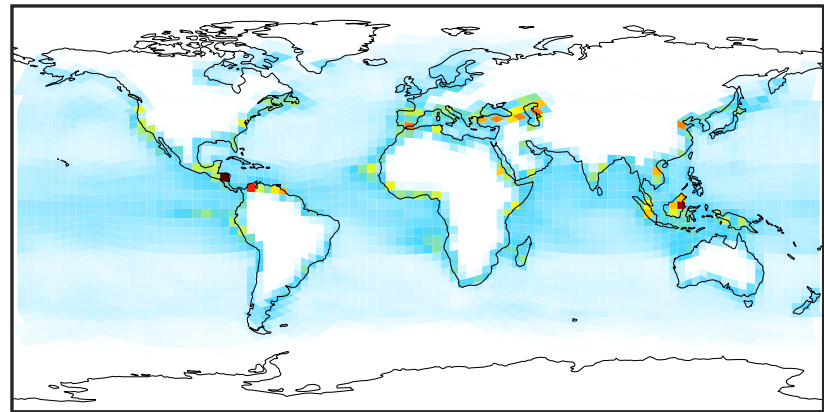
# SpeciesConcVV\_CH2I2 (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



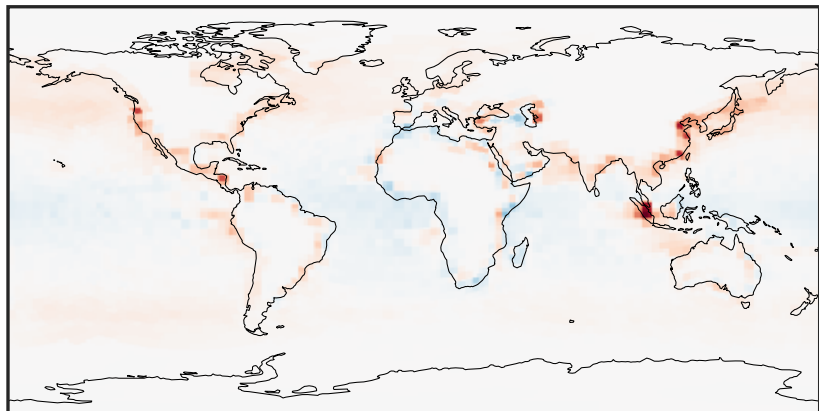
0.00000 0.00004 0.00008 0.00012  
ppb

GCHP\_14.2.0 (Dev)  
c24



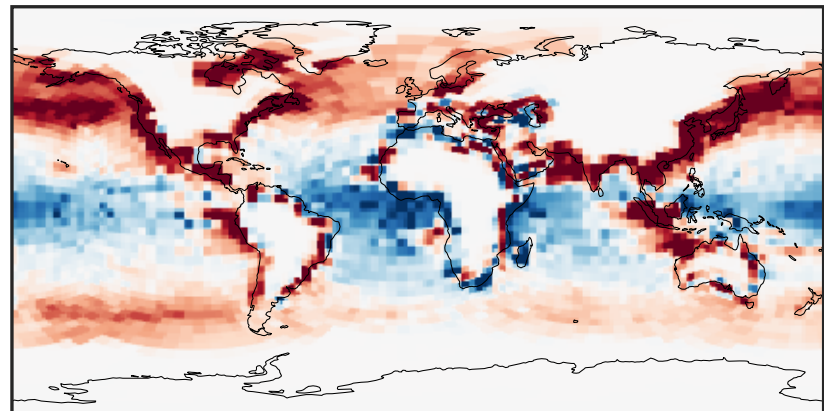
0.00000 0.00004 0.00008 0.00012  
ppb

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



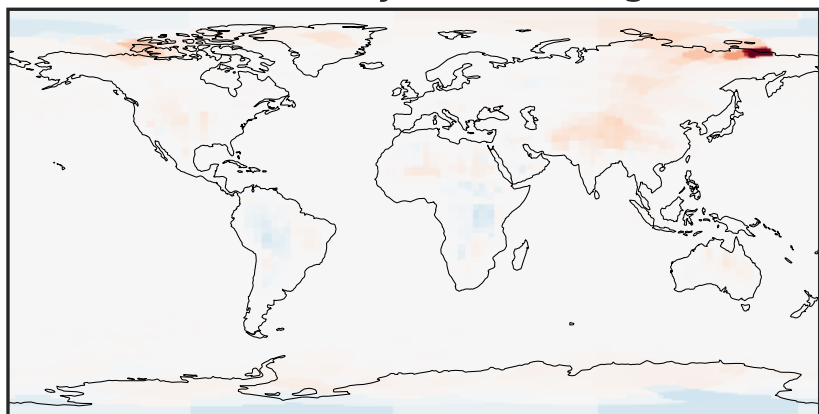
-3 0 3  
ppb  $1e-8$

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



-3 0 3  
ppb  $1e-9$

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



0.9477 0.9738 1.0000 1.0276 1.0552  
unitless

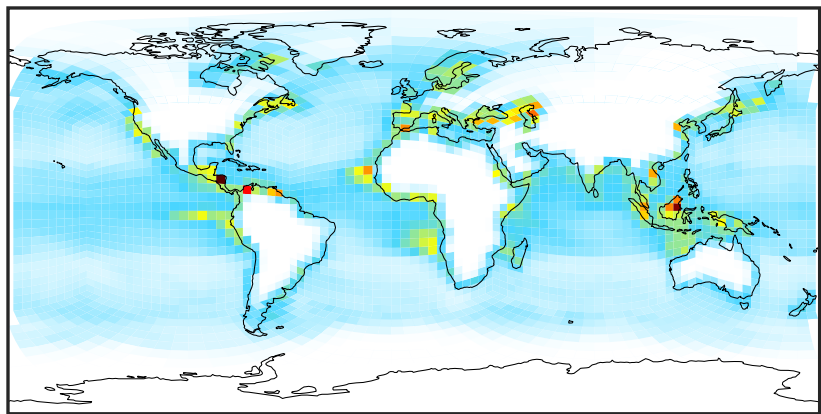
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

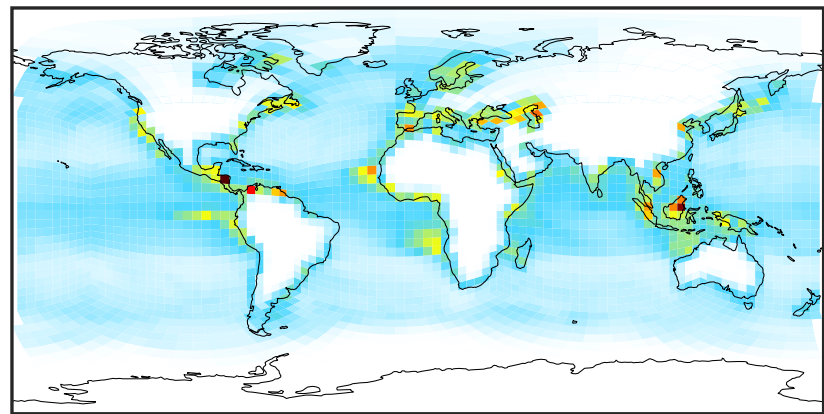
# SpeciesConcVV\_CH2ICl (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



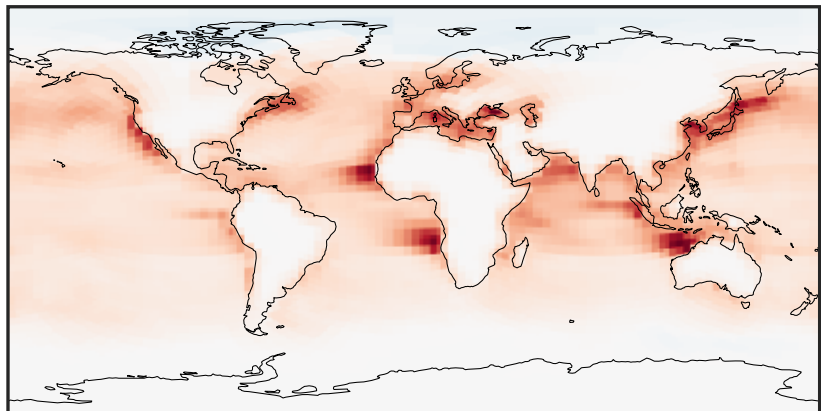
0.0002 0.0004 0.0006  
ppb

GCHP\_14.2.0 (Dev)  
c24



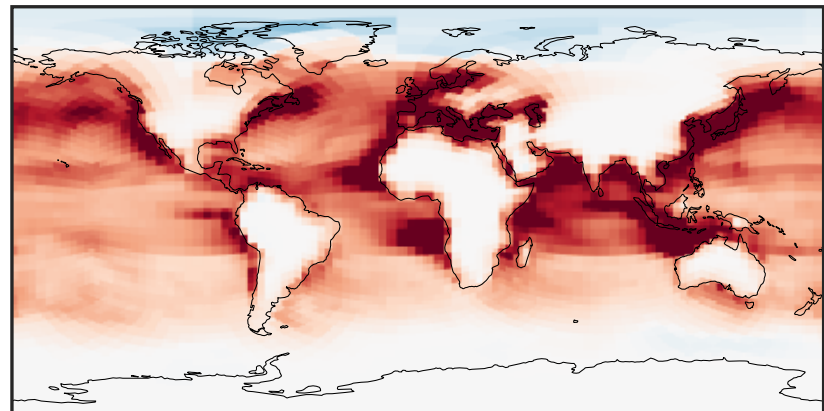
0.0002 0.0004 0.0006  
ppb

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



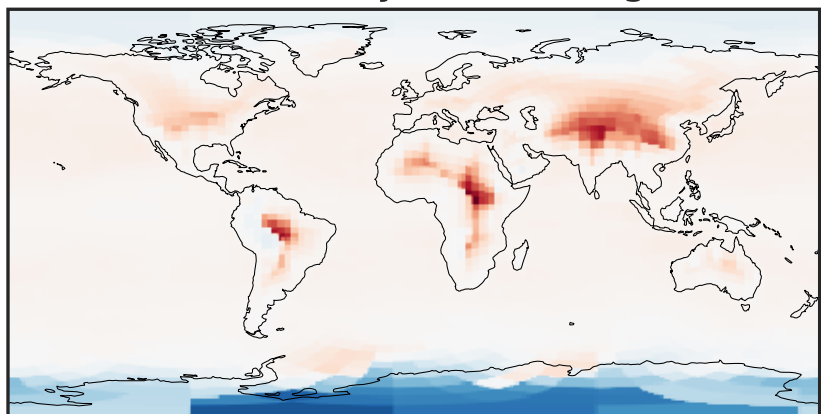
-6 0 6  
ppb  $1e-7$

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



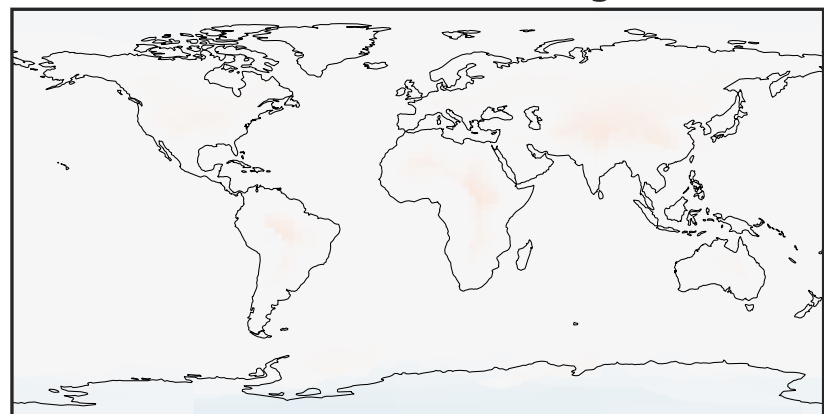
-2.5 0.0 2.5  
ppb  $1e-7$

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



0.9334 0.9667 1.0000 1.0357 1.0714  
unitless

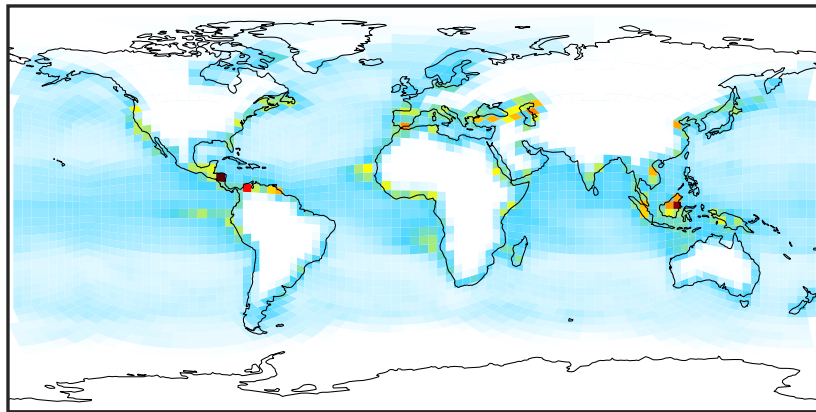
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

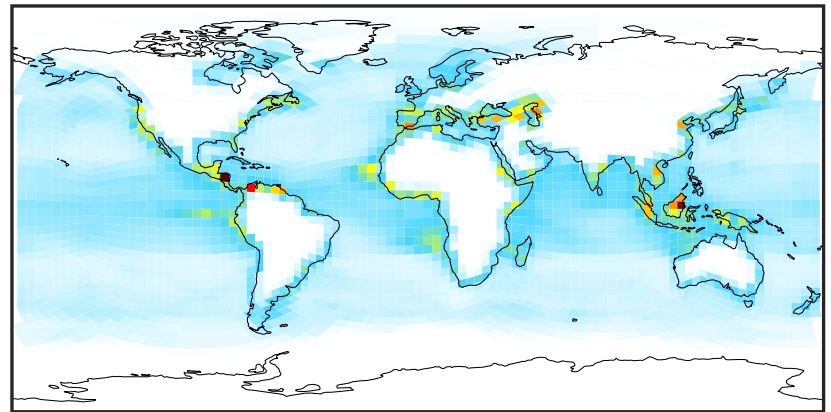
# SpeciesConcVV\_CH2IBr (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



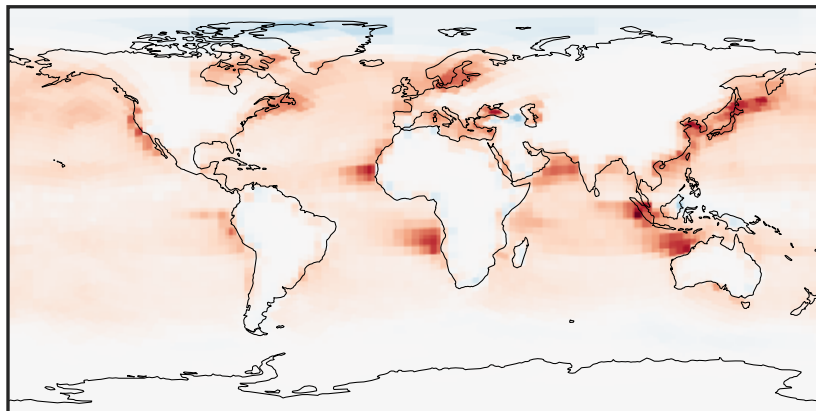
0.00000 0.00005 0.00010 0.00015  
ppb

GCHP\_14.2.0 (Dev)  
c24



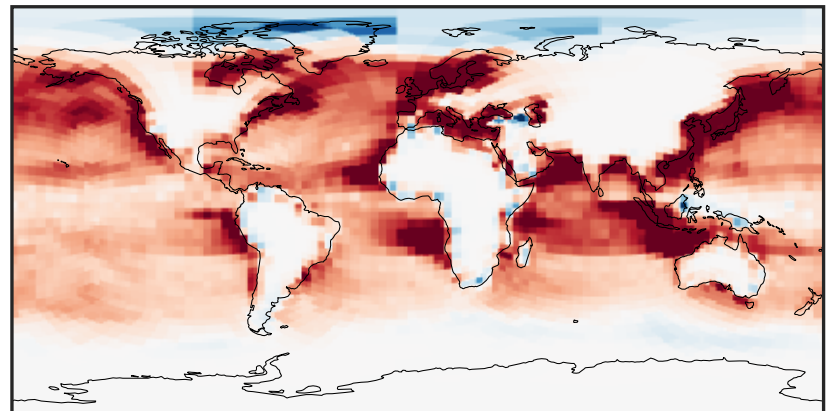
0.00000 0.00005 0.00010 0.00015  
ppb

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



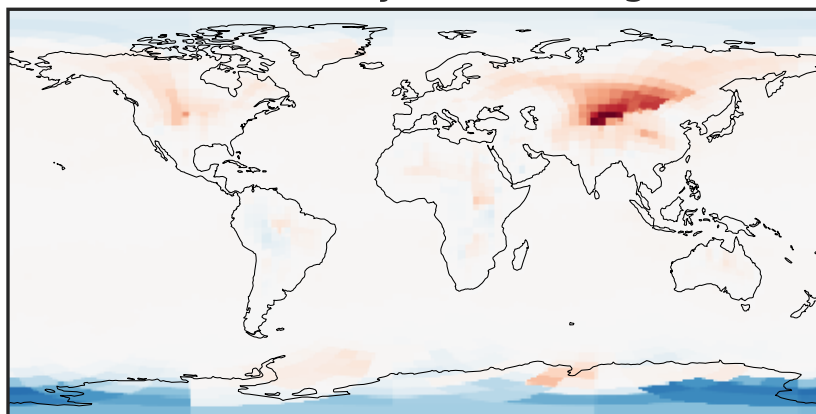
-6 0 6  
ppb 1e-8

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



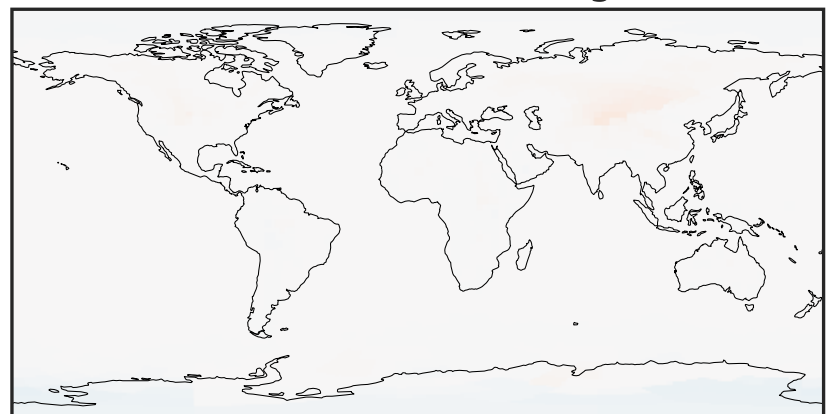
-2 0 2  
ppb 1e-8

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



0.9346 0.9673 1.0000 1.0350 1.0700  
unitless

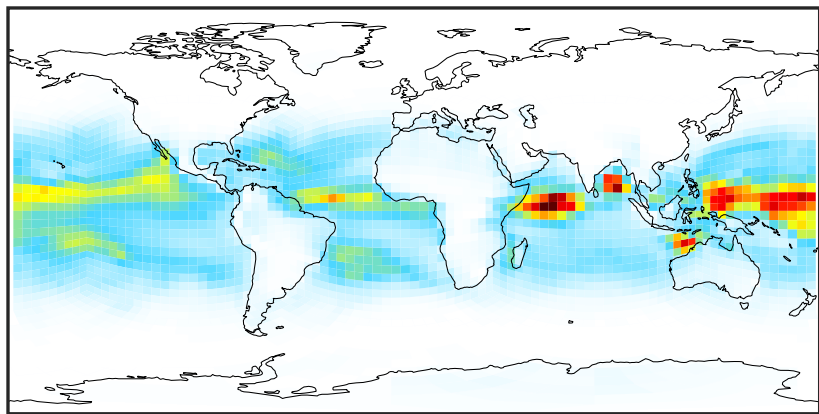
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

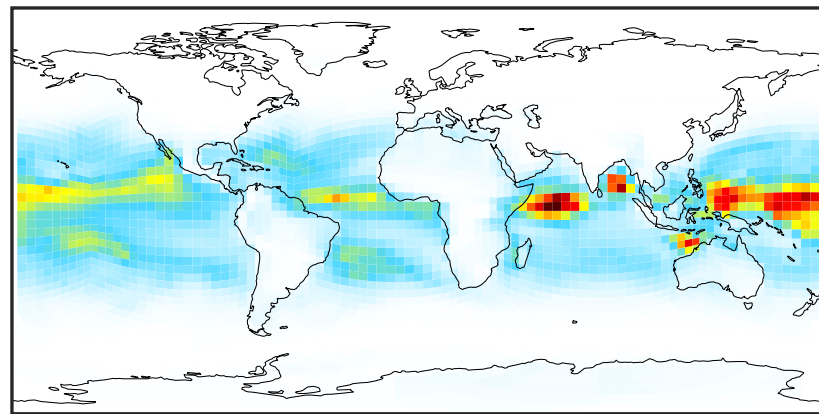
# SpeciesConcVV\_HI (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



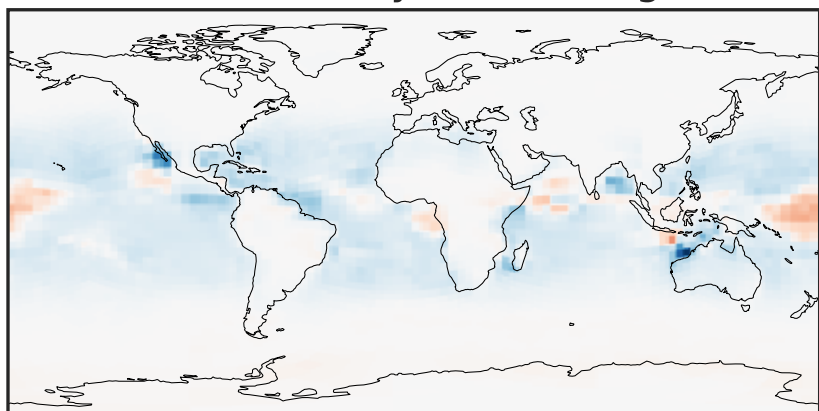
0.00005 0.00010 0.00015  
ppb

GCHP\_14.2.0 (Dev)  
c24



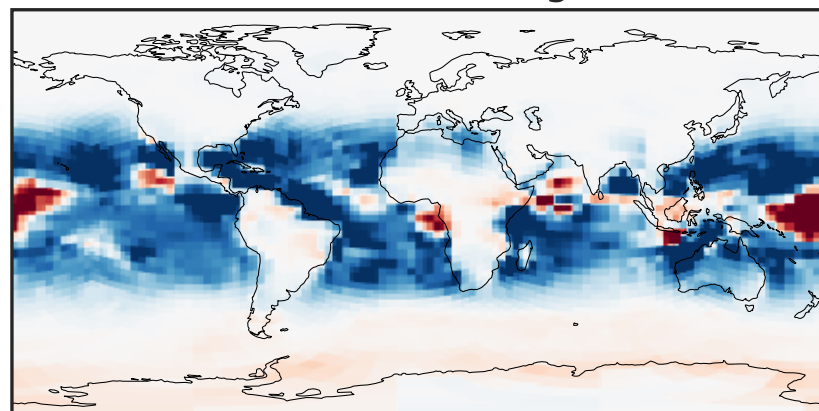
0.00005 0.00010 0.00015  
ppb

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



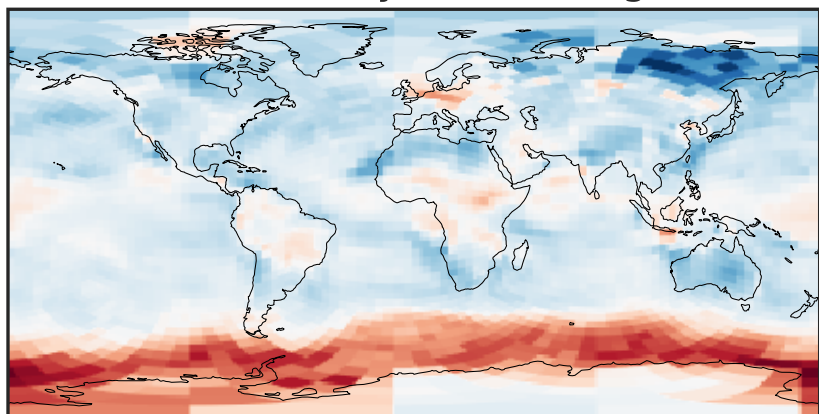
-8 0 8  
ppb  $1e-6$

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



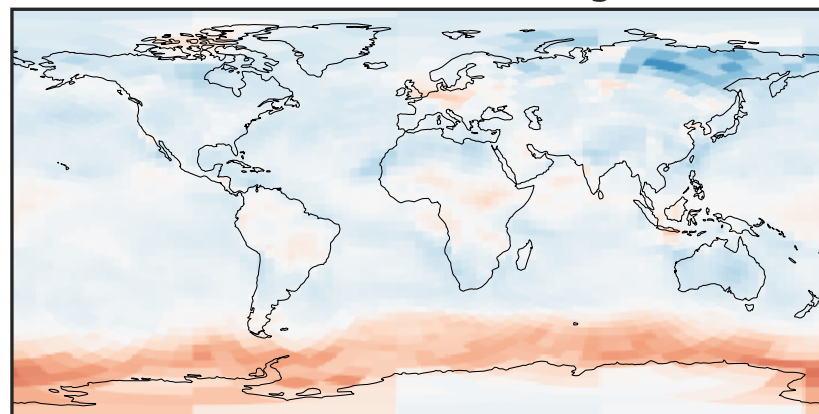
-1.5 0.0 1.5  
ppb  $1e-6$

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



0.6910 0.8455 1.0000 1.2236 1.4472  
unitless

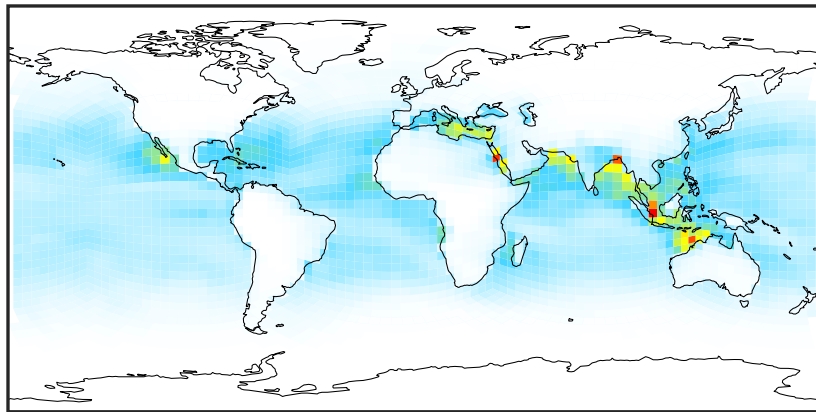
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

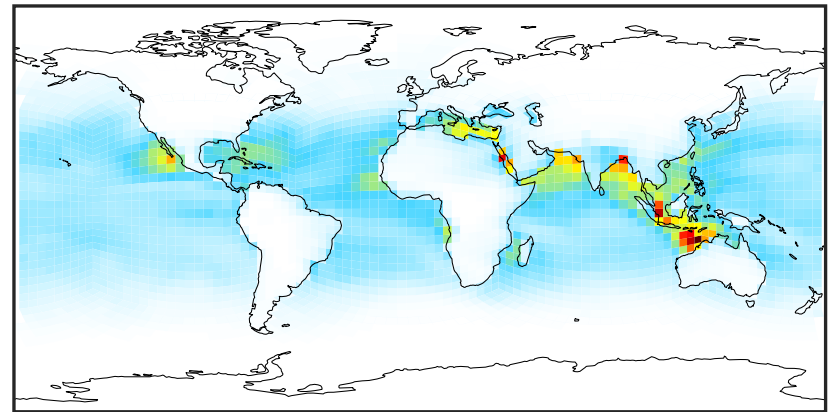
# SpeciesConcVV\_HOI (Oct2019)

GCHP\_14.0.0 (Ref)  
c24



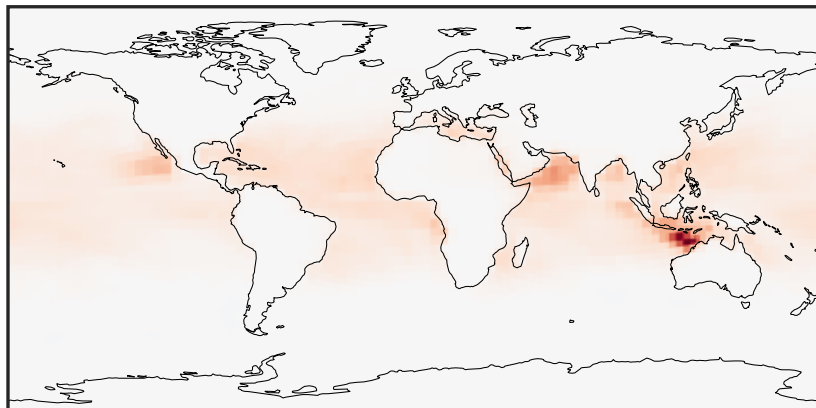
0.006 0.012 0.018  
ppb

GCHP\_14.2.0 (Dev)  
c24



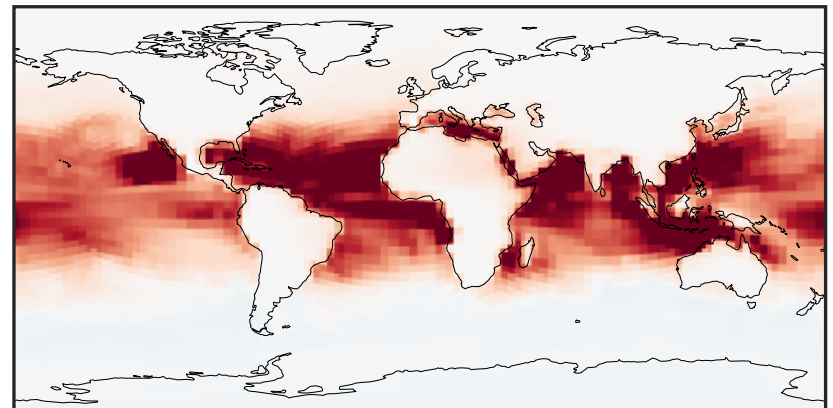
0.006 0.012 0.018  
ppb

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



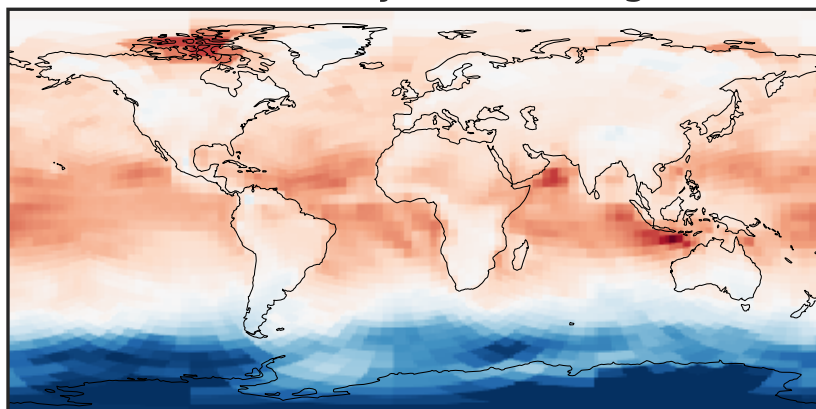
-0.005 0.000 0.005  
ppb

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



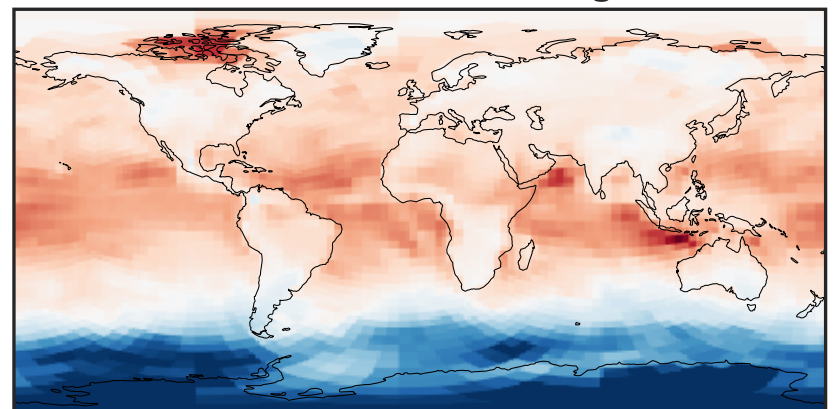
-0.0006 0.0000 0.0006  
ppb

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



0.485 0.743 1.000 1.531 2.062  
unitless

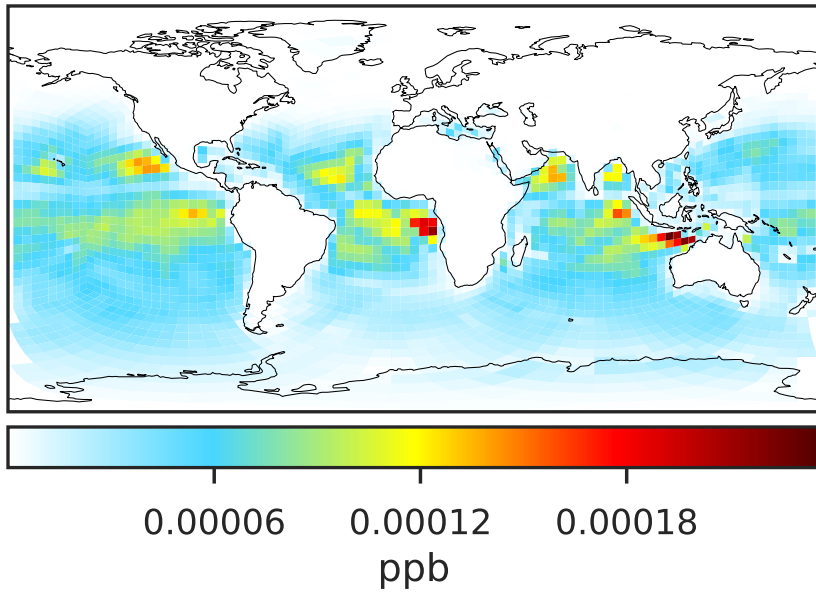
Ratio (1x1.25)  
Dev/Ref, Fixed Range



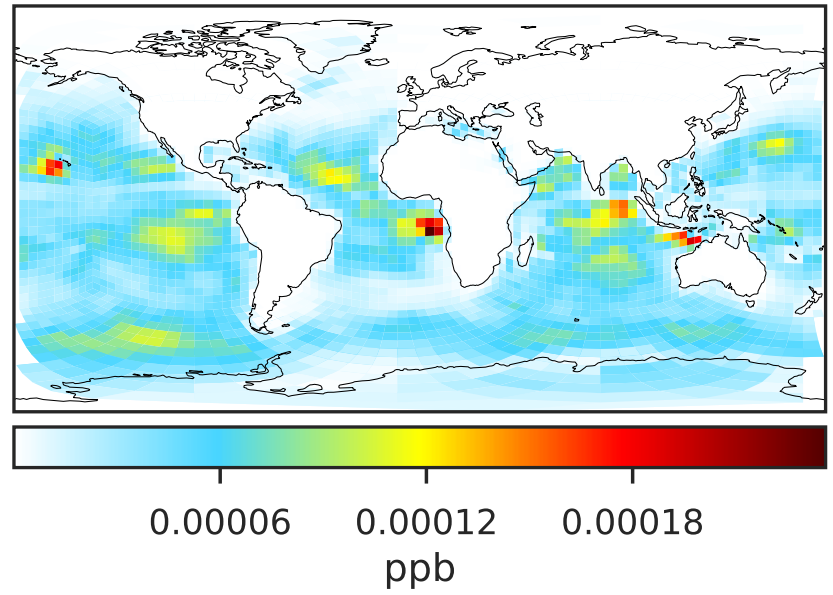
0.50 0.75 1.00 1.50 2.00  
unitless

# SpeciesConcVV\_OIO (Oct2019)

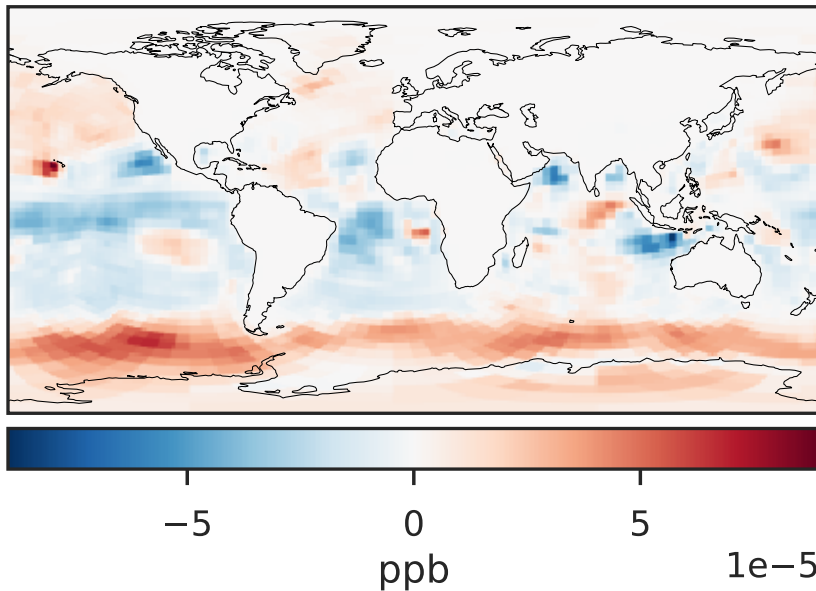
GCHP\_14.0.0 (Ref)  
c24



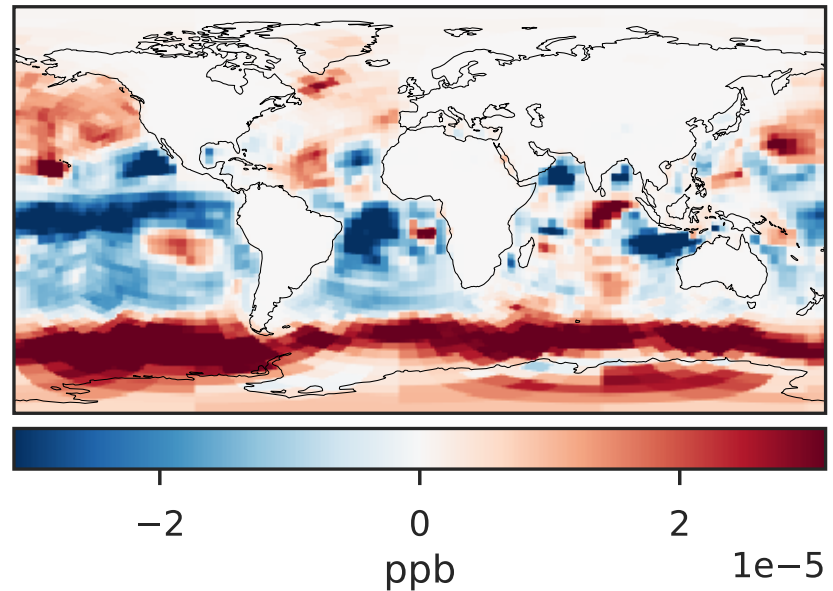
GCHP\_14.2.0 (Dev)  
c24



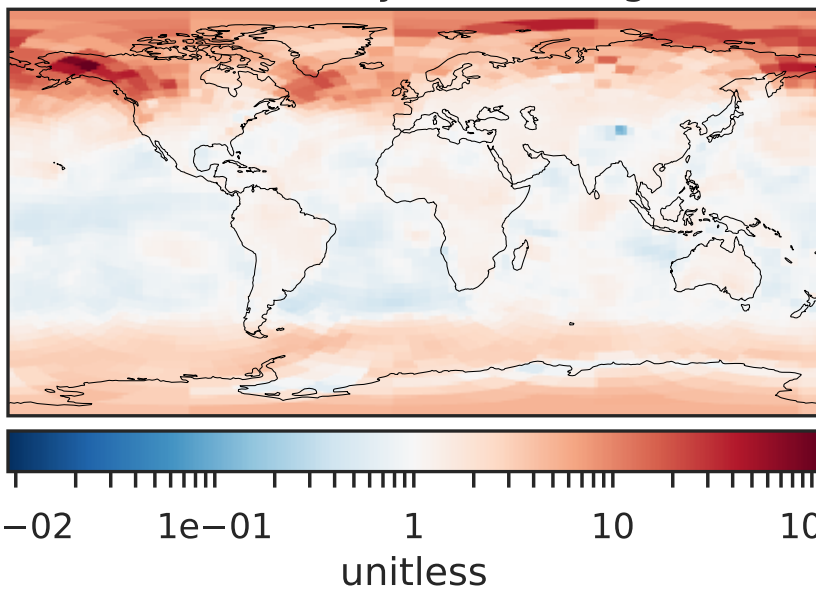
Difference (1x1.25)  
Dev - Ref, Dynamic Range



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



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



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

