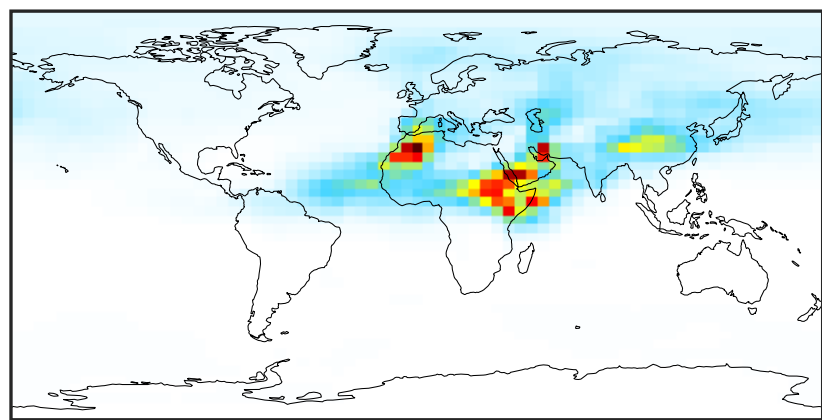


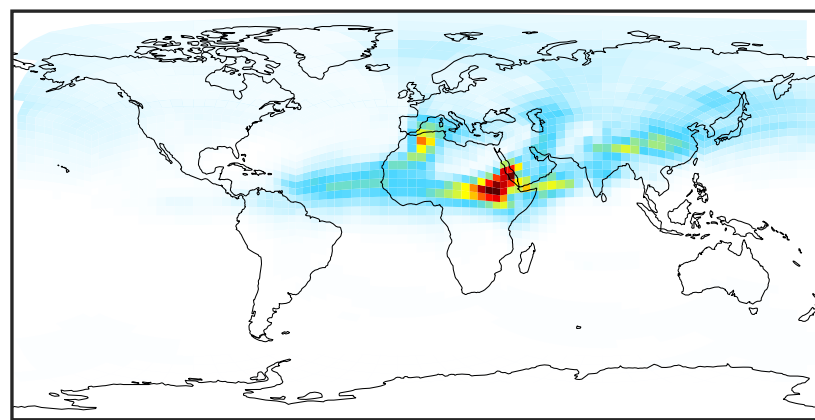
SpeciesConcVV_DST1 (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



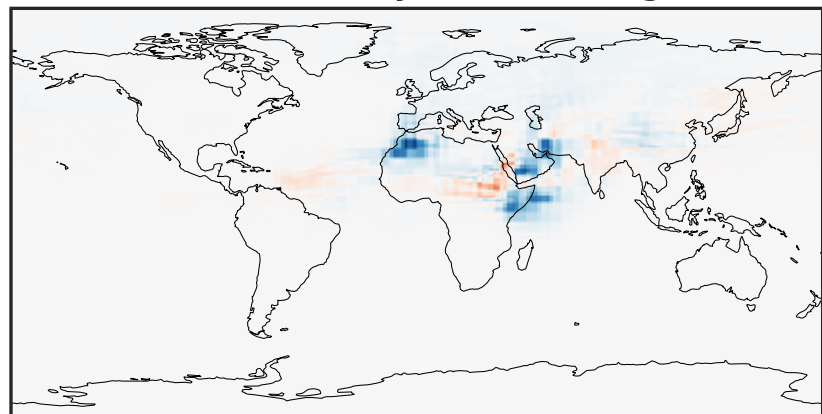
0.001 1.078 2.156 3.234 4.313
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



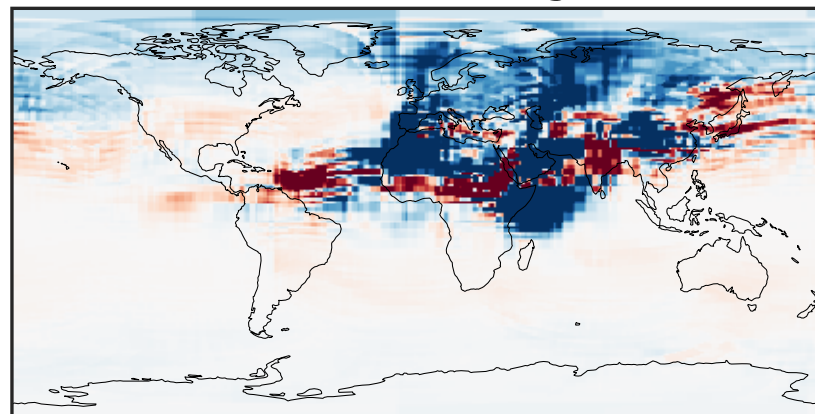
0.001 1.078 2.156 3.234 4.313
 $\mu\text{g}/\text{m}^3$

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



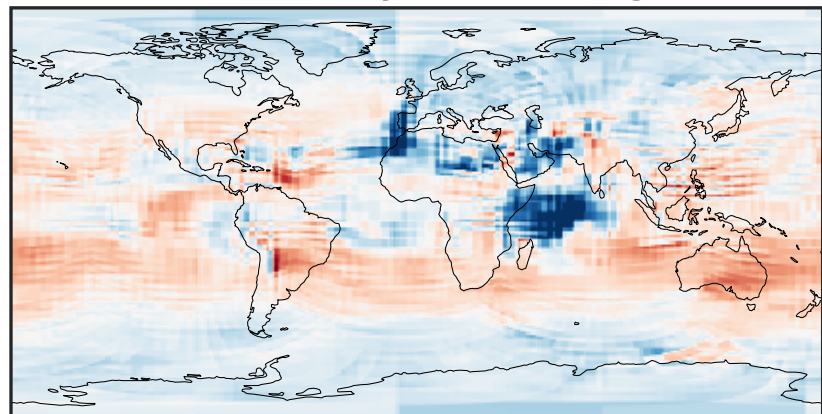
-3.248 -1.624 0.000 1.624 3.248
 $\mu\text{g}/\text{m}^3$

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



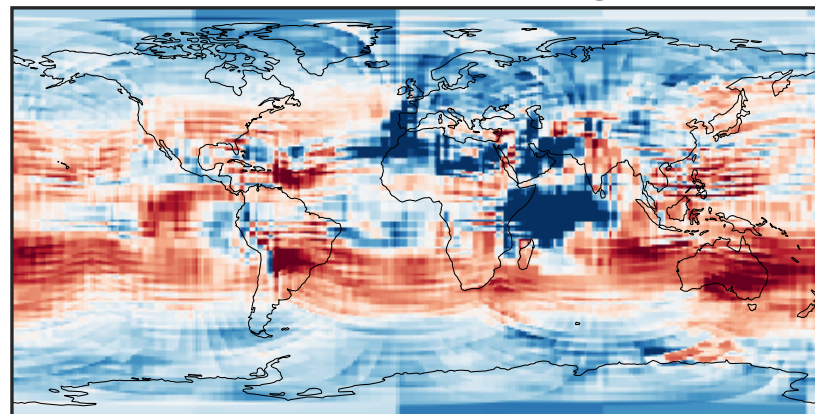
-0.1505 -0.0753 0.0000 0.0753 0.1505
 $\mu\text{g}/\text{m}^3$

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



0.213 0.607 1.000 2.844 4.689
unitless

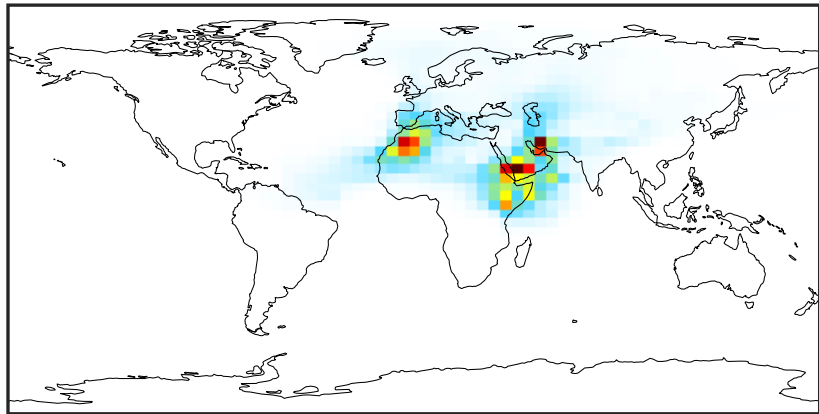
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

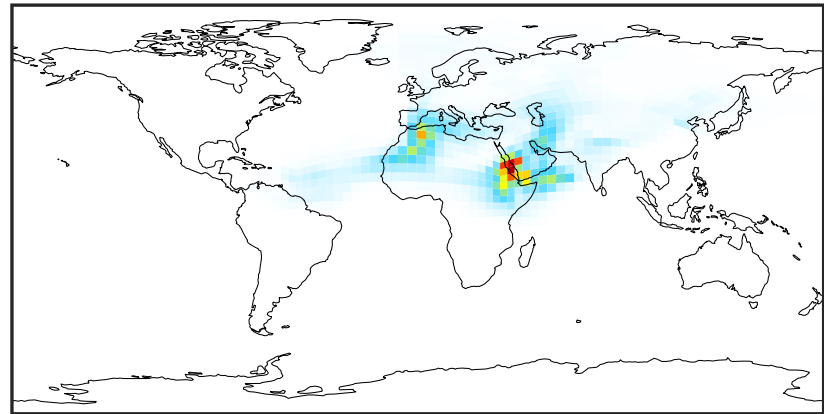
SpeciesConcVV_DST2 (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



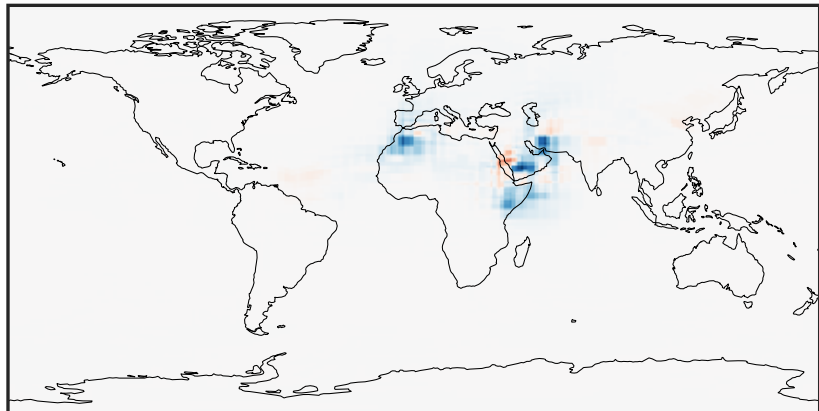
0.000 1.333 2.665 3.998 5.330
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



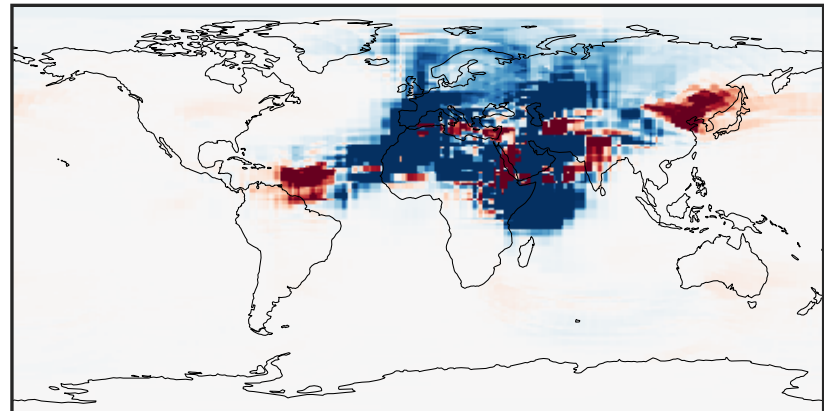
0.000 1.333 2.665 3.998 5.330
 $\mu\text{g}/\text{m}^3$

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



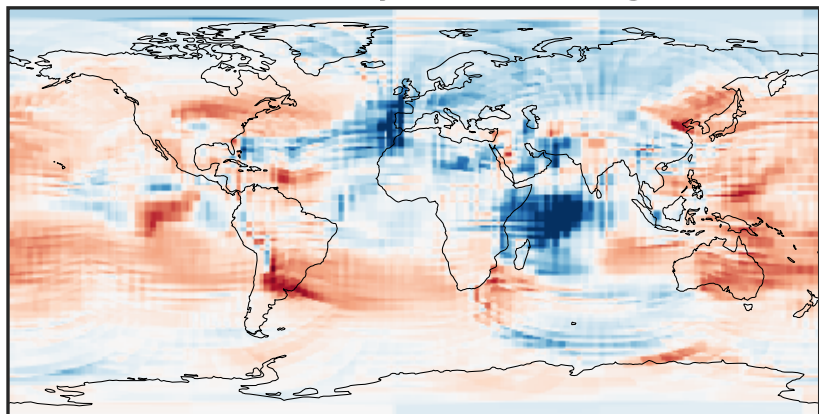
-4.408 -2.204 0.000 2.204 4.408
 $\mu\text{g}/\text{m}^3$

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



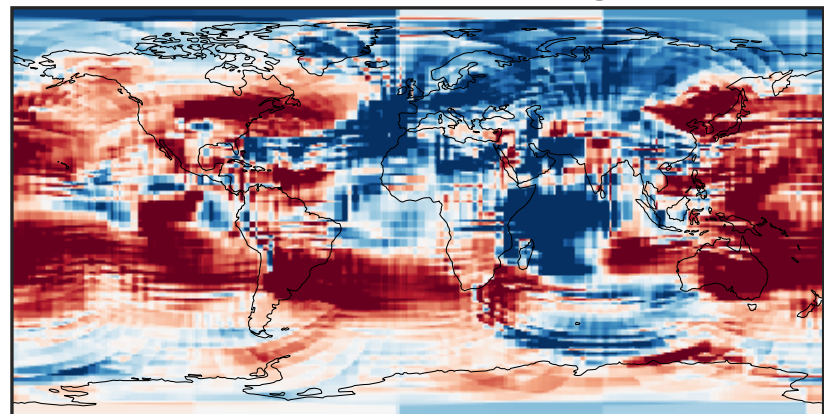
-0.0797 -0.0399 0.0000 0.0399 0.0797
 $\mu\text{g}/\text{m}^3$

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



0.112 0.556 1.000 4.958 8.915
unitless

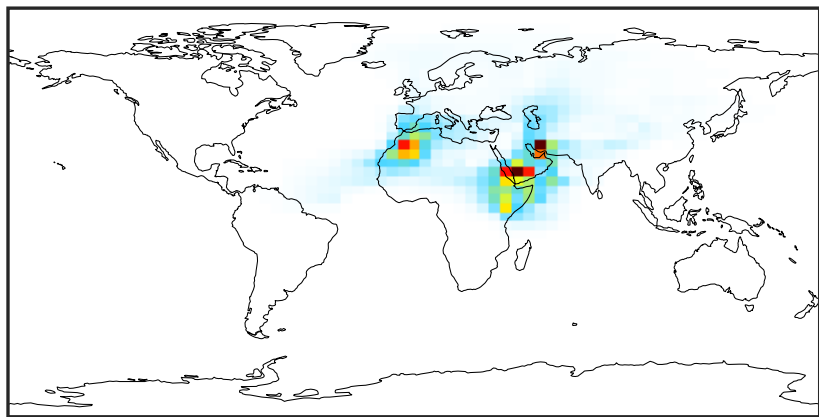
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

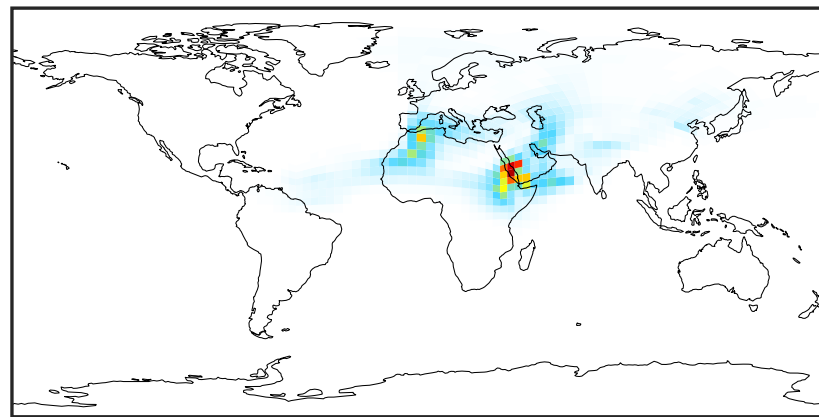
SpeciesConcVV_DST3 (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



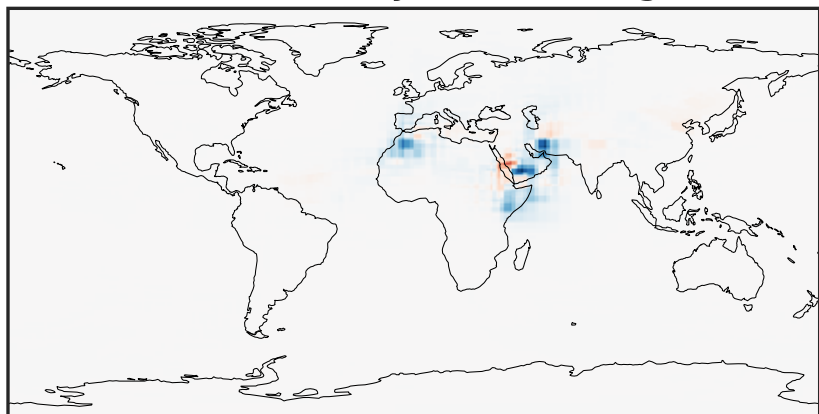
0.000 1.748 3.496 5.244 6.992
µg/m3

GCHP_14.2.0 (Dev)
c24



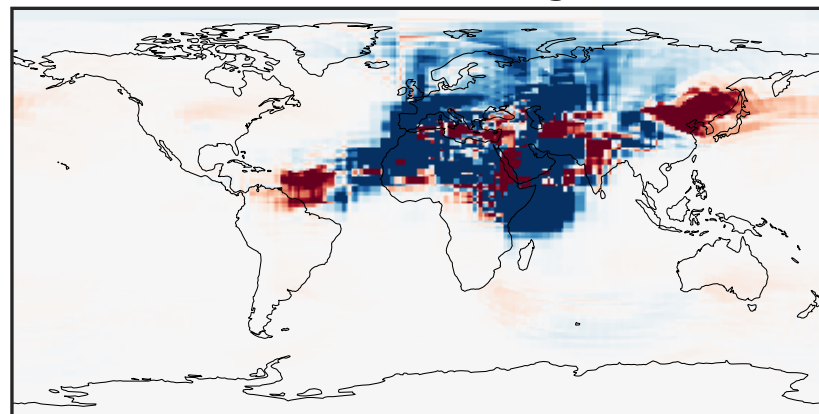
0.000 1.748 3.496 5.244 6.992
µg/m3

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



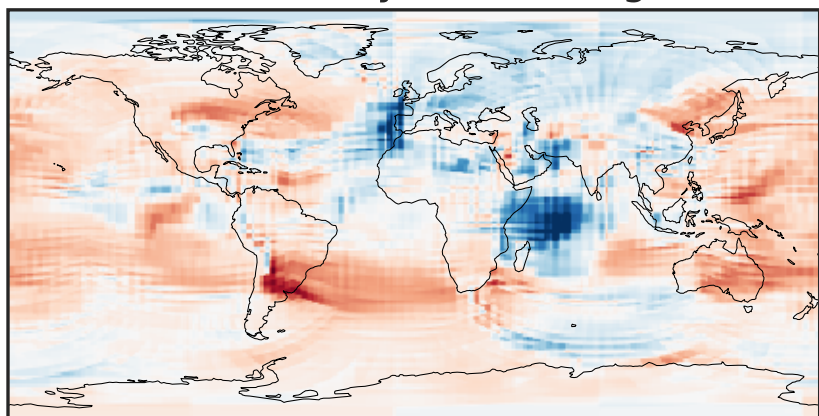
-5.85 -2.92 0.00 2.92 5.85
µg/m3

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



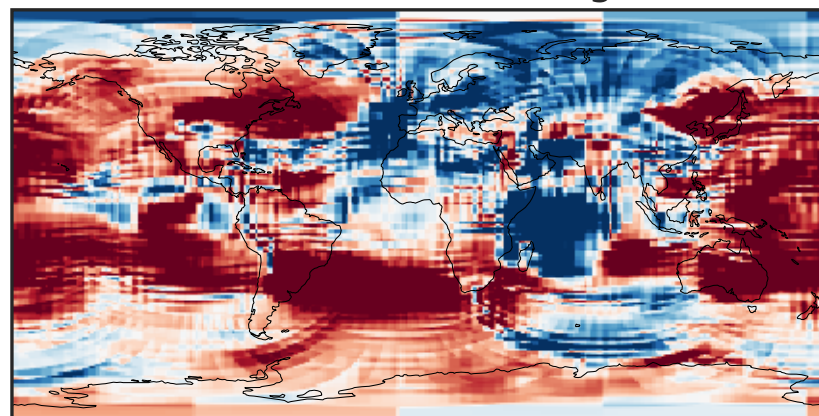
-0.0690 -0.0345 0.0000 0.0345 0.0690
µg/m3

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



1e-01 1 10
unitless

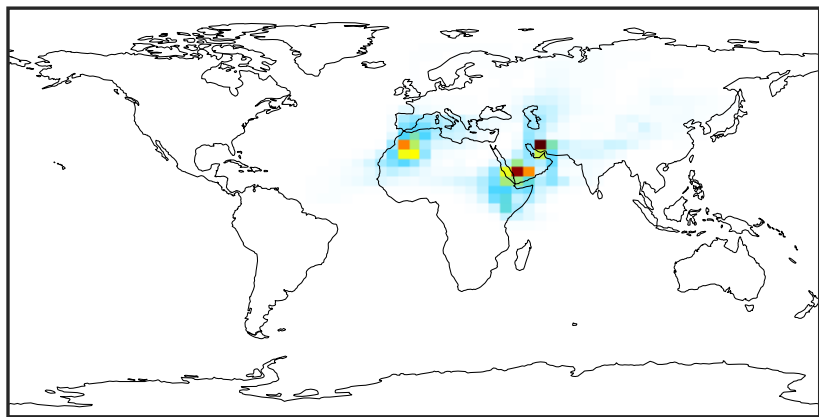
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

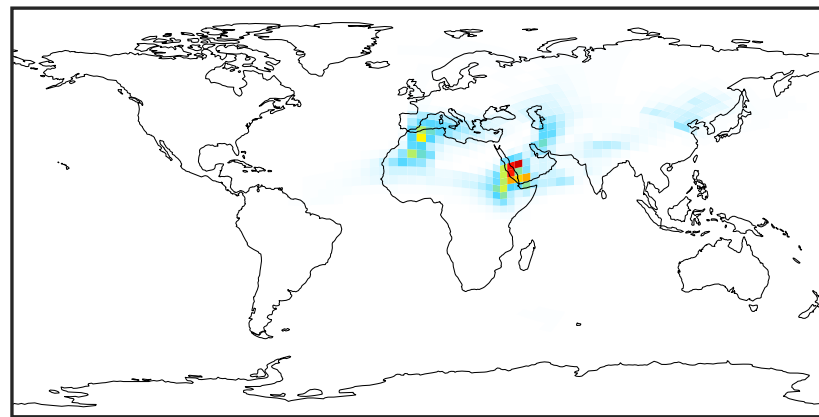
SpeciesConcVV_DST4 (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



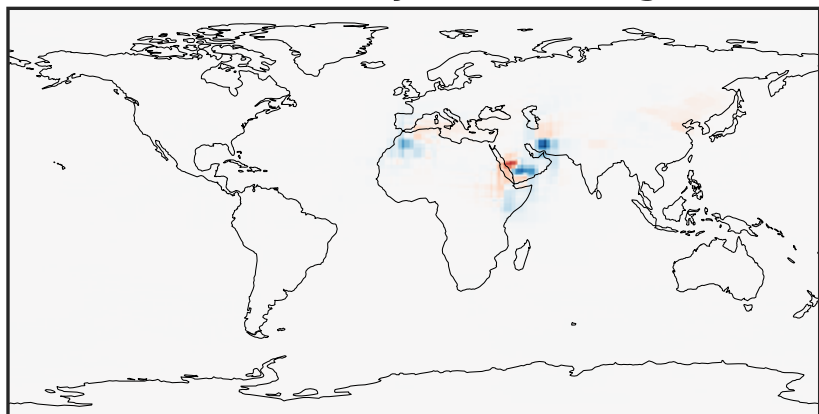
0.000 0.689 1.379 2.068 2.758
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



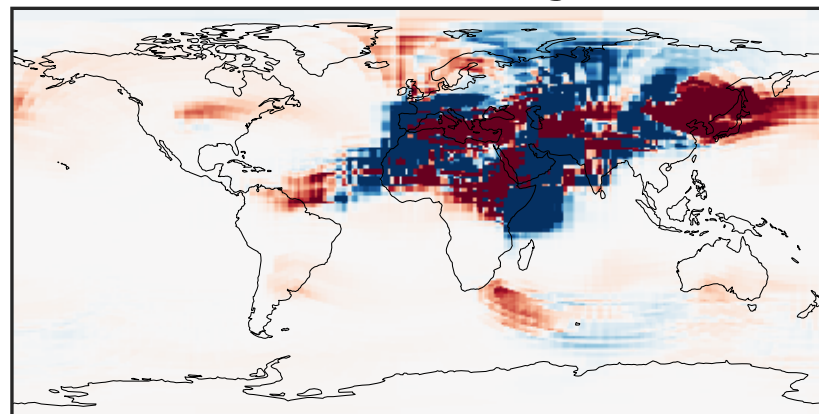
0.000 0.689 1.379 2.068 2.758
 $\mu\text{g}/\text{m}^3$

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



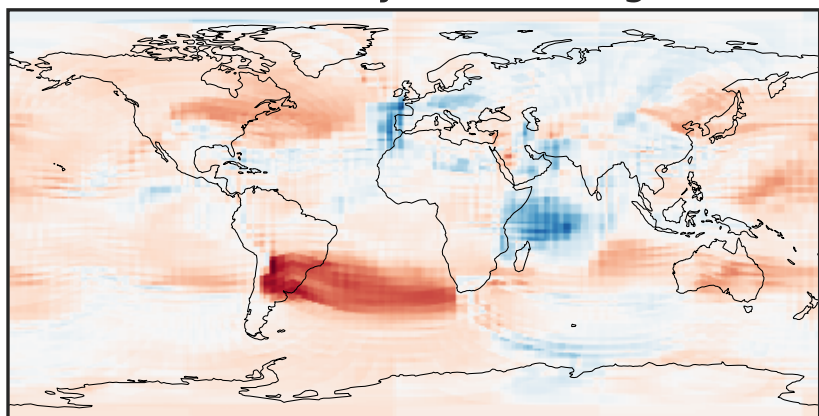
-2.534 -1.267 0.000 1.267 2.534
 $\mu\text{g}/\text{m}^3$

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



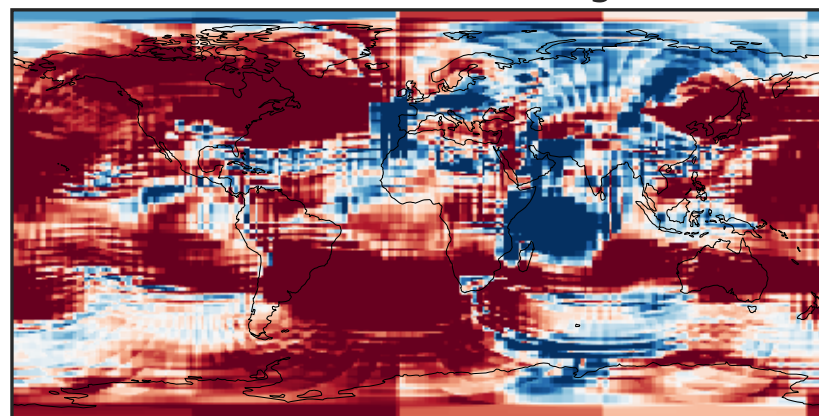
-0.005 0.000 0.005
 $\mu\text{g}/\text{m}^3$

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



1e-02 1e-01 1 10 100
unitless

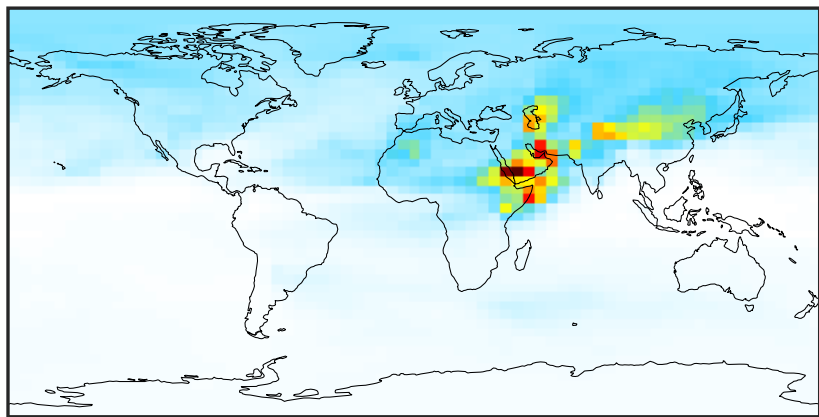
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

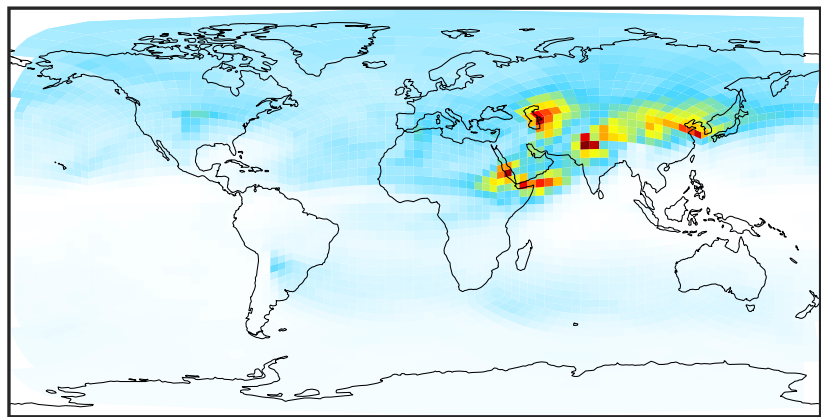
SpeciesConcVV_NH4 (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



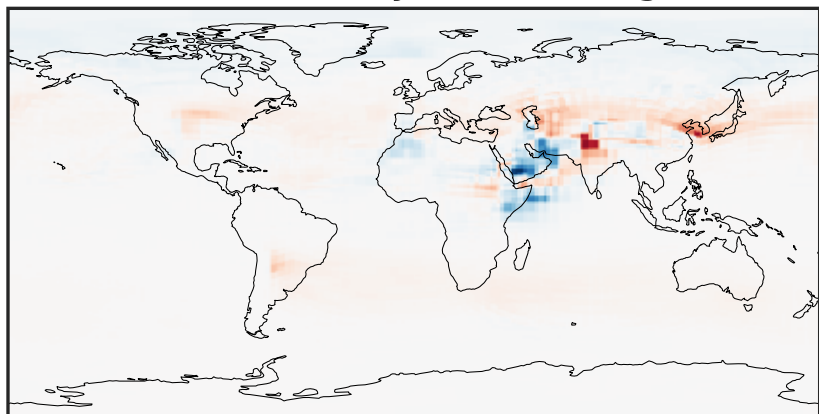
0.0003 0.0584 0.1168 0.1751 0.2338 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



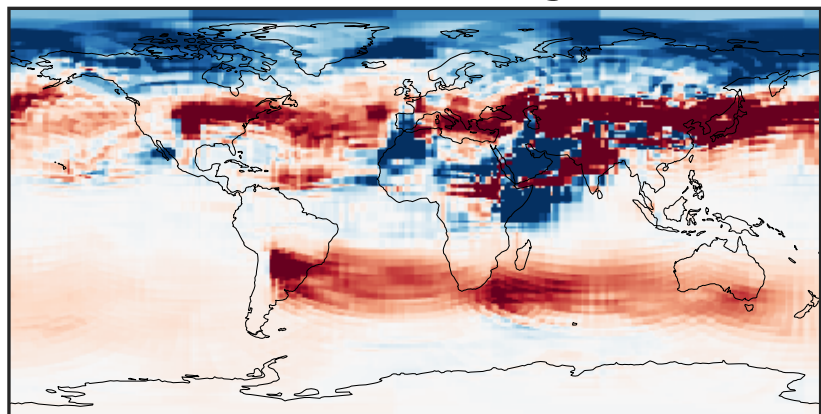
0.0003 0.0584 0.1168 0.1751 0.2338 $\mu\text{g}/\text{m}^3$

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



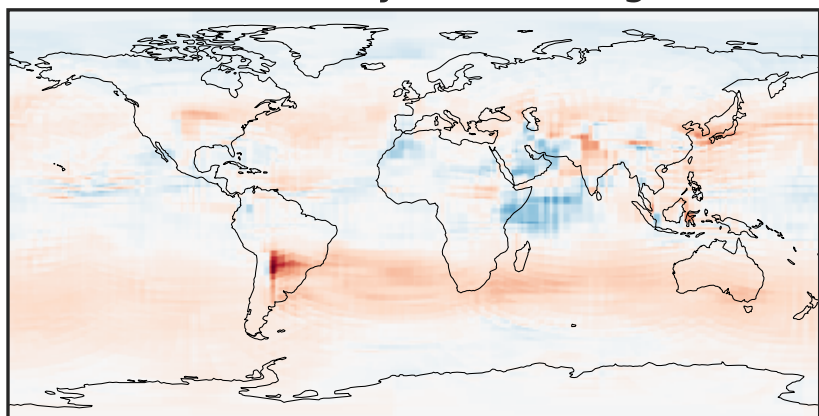
-0.1672 -0.0836 0.0000 0.0836 0.1672 $\mu\text{g}/\text{m}^3$

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



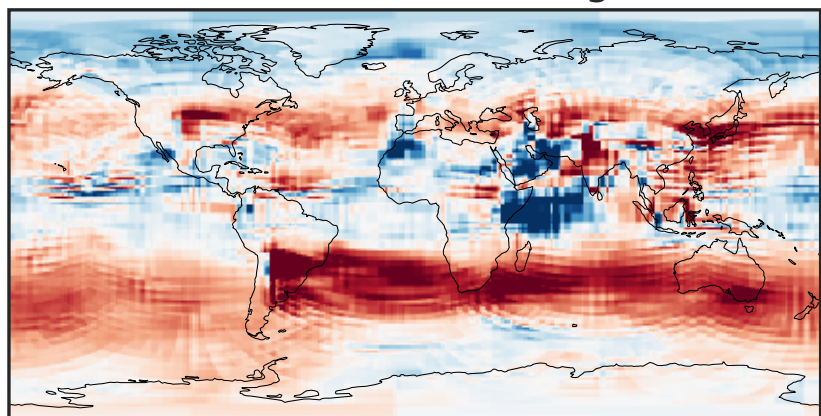
-0.005 0.000 0.005 $\mu\text{g}/\text{m}^3$

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



1e-01 1 10
unitless

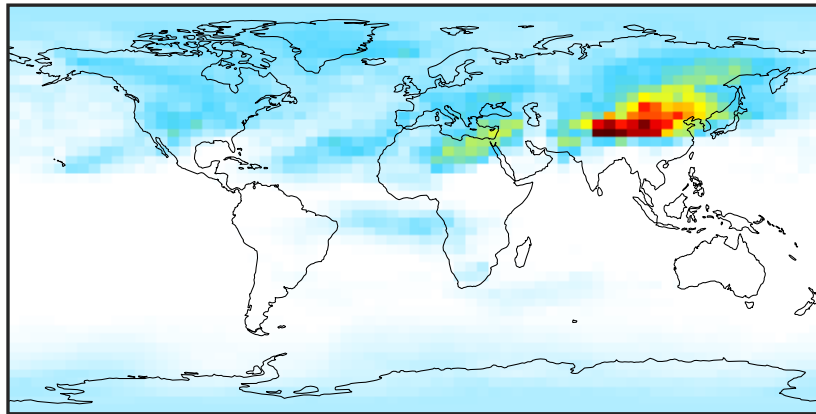
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

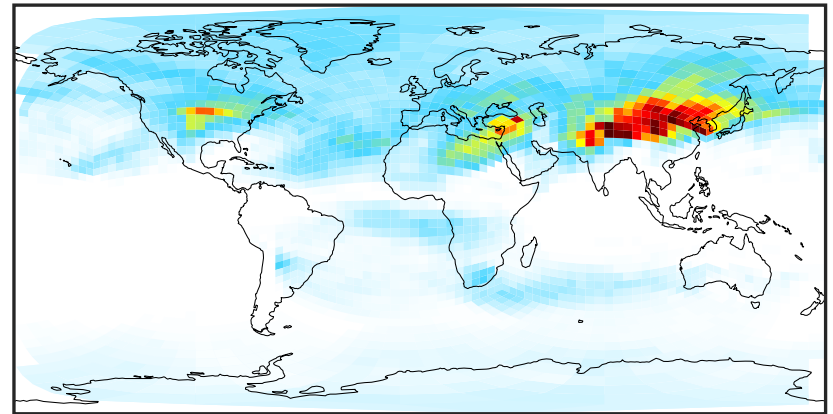
SpeciesConcVV_NIT (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



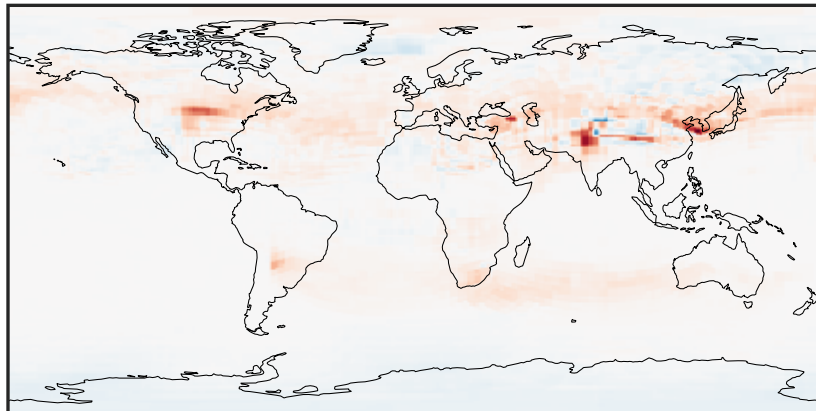
0.0000 0.0635 0.1270 0.1906 0.2541
µg/m3

GCHP_14.2.0 (Dev)
c24



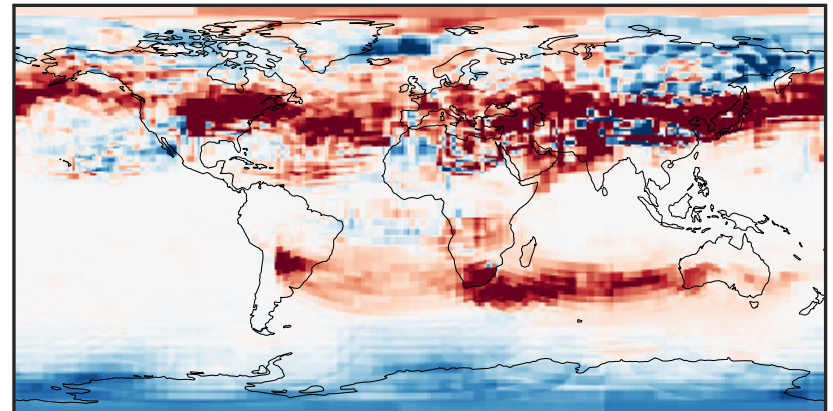
0.0000 0.0635 0.1270 0.1906 0.2541
µg/m3

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



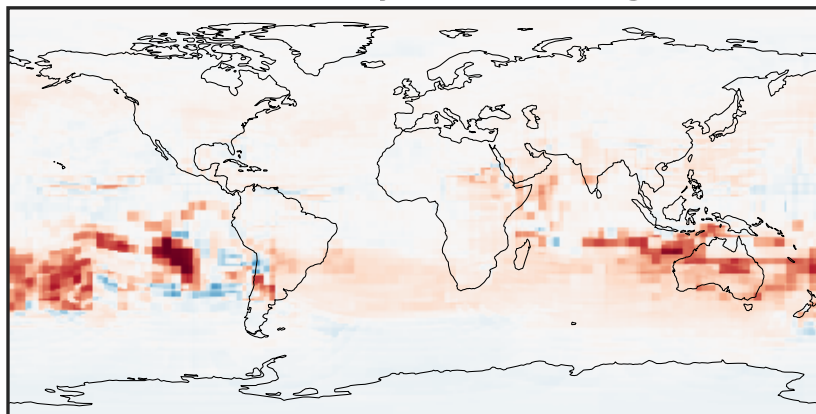
-0.1831 -0.0916 0.0000 0.0916 0.1831
µg/m3

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



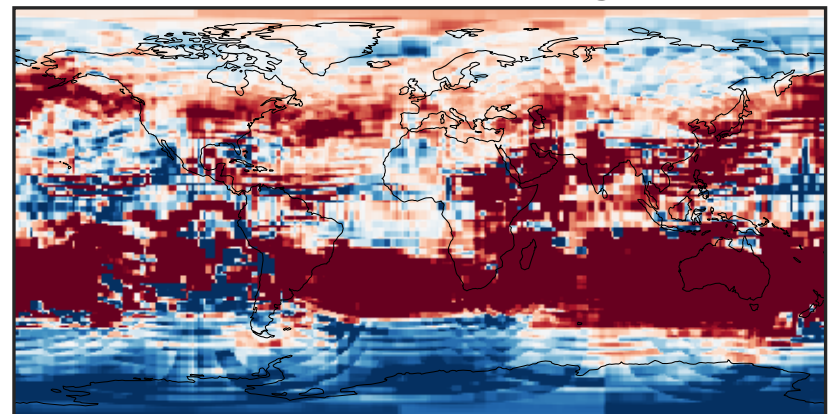
-0.01 0.00 0.01
µg/m3

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



unitless

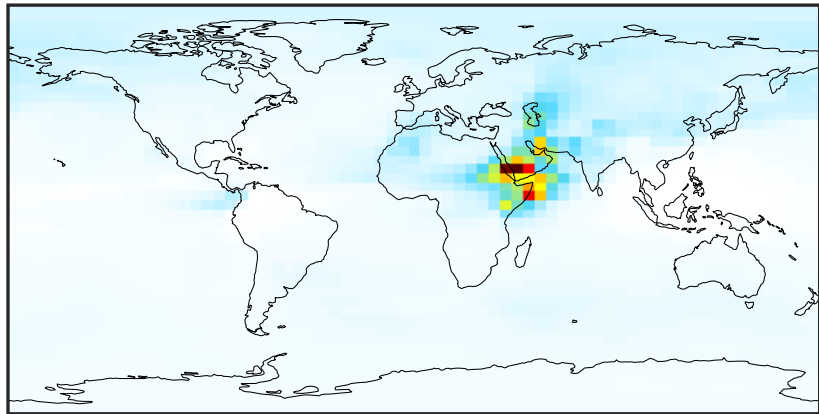
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

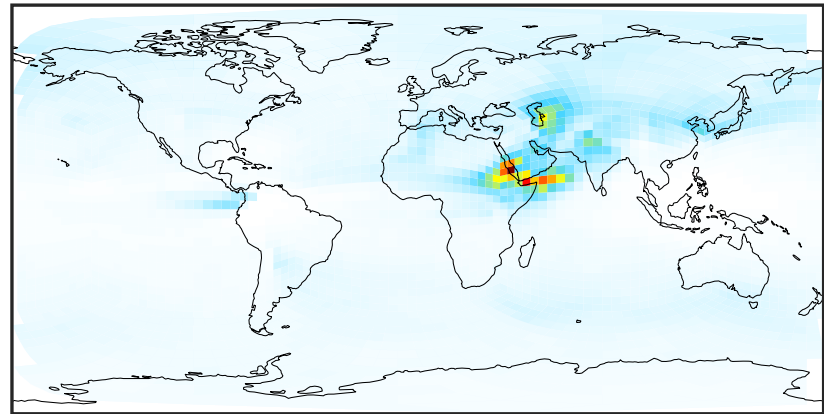
SpeciesConcVV_SO4 (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



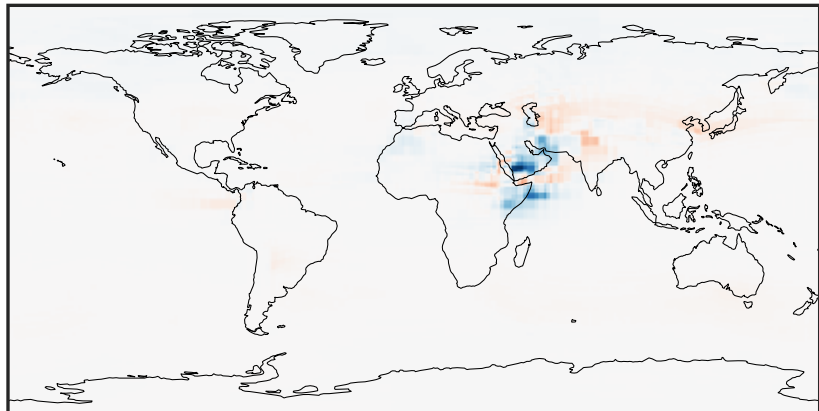
0.004 0.321 0.642 0.963 1.288
µg/m3

GCHP_14.2.0 (Dev)
c24



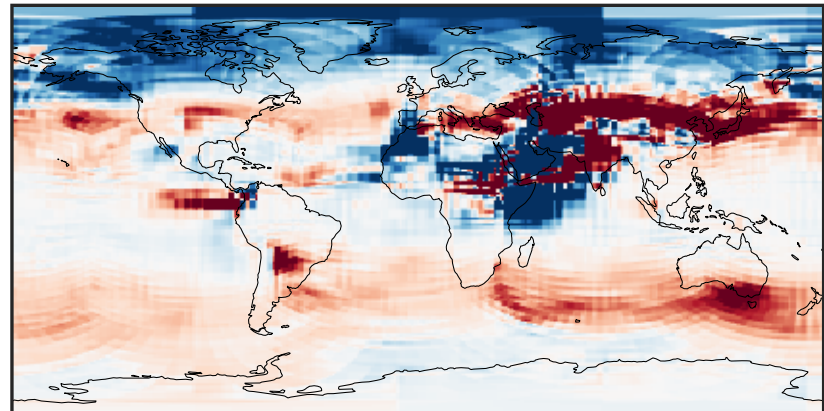
0.004 0.321 0.642 0.963 1.288
µg/m3

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



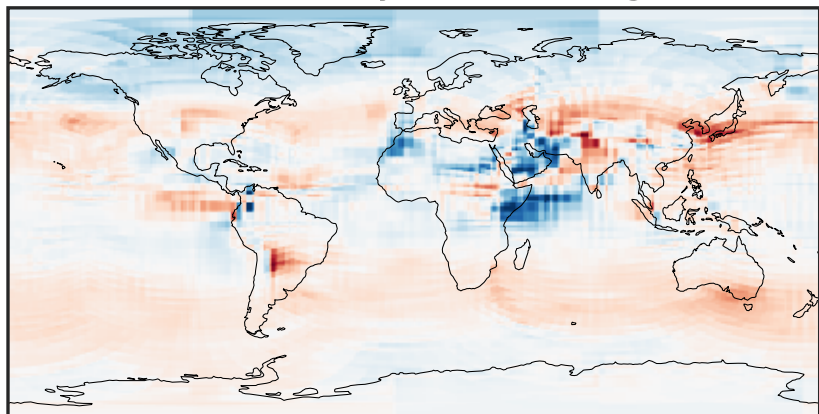
-0.987 -0.493 0.000 0.493 0.987
µg/m3

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



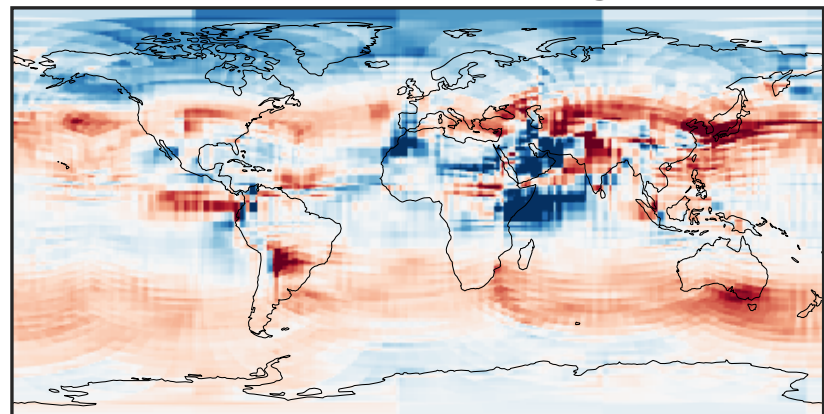
-0.015 0.000 0.015
µg/m3

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



0.236 0.618 1.000 2.620 4.239
unitless

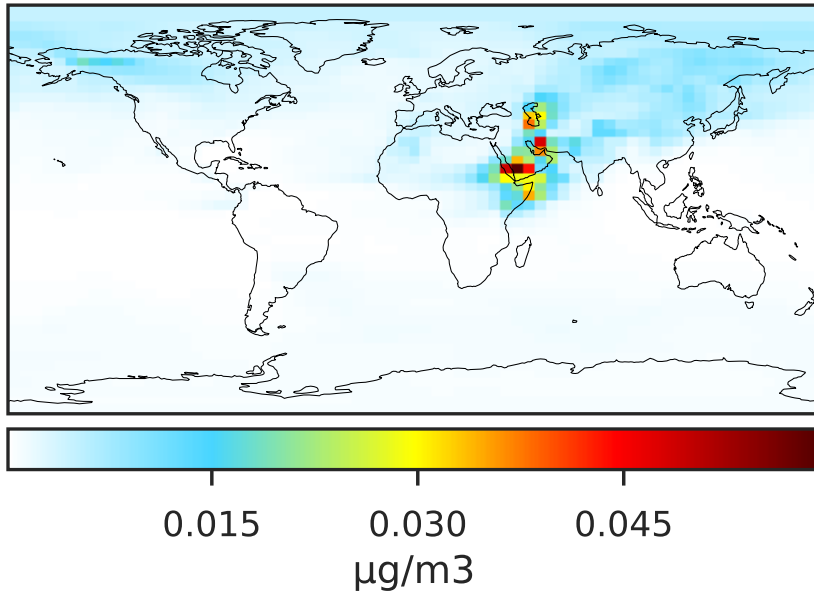
Ratio (1x1.25)
Dev/Ref, Fixed Range



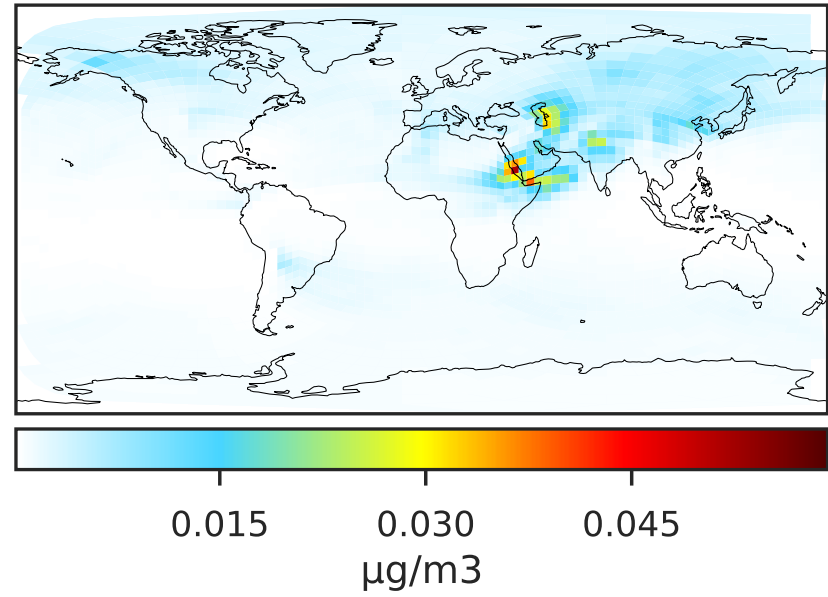
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_HMS (Jul2019)

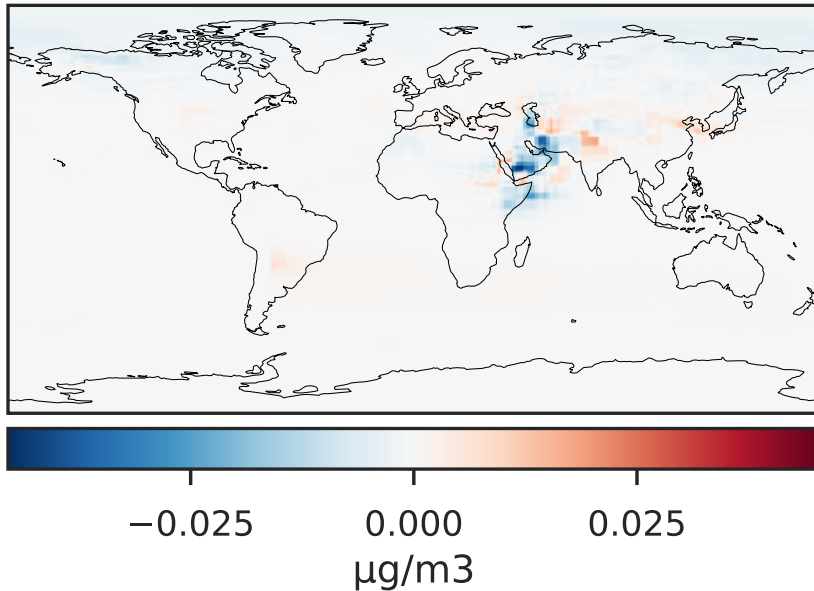
GCC_14.2.0 (Ref)
4.0x5.0



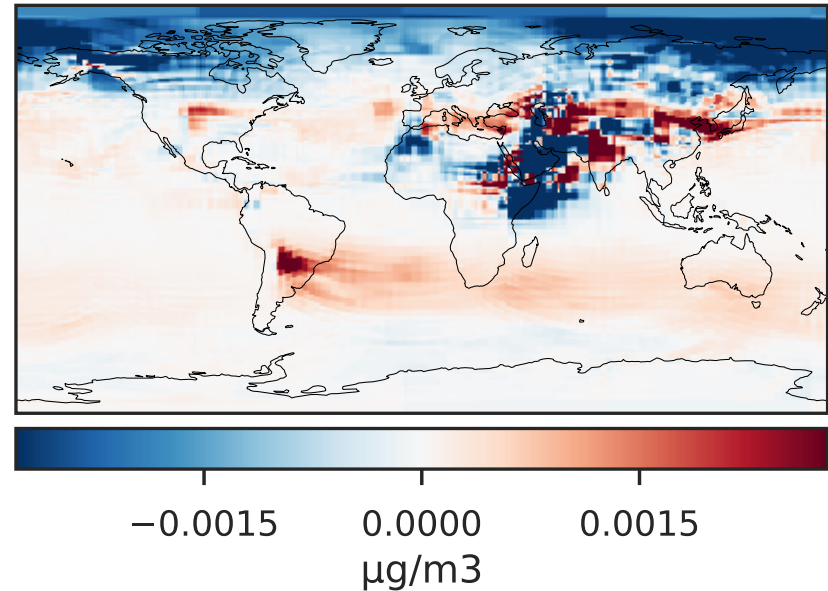
GCHP_14.2.0 (Dev)
c24



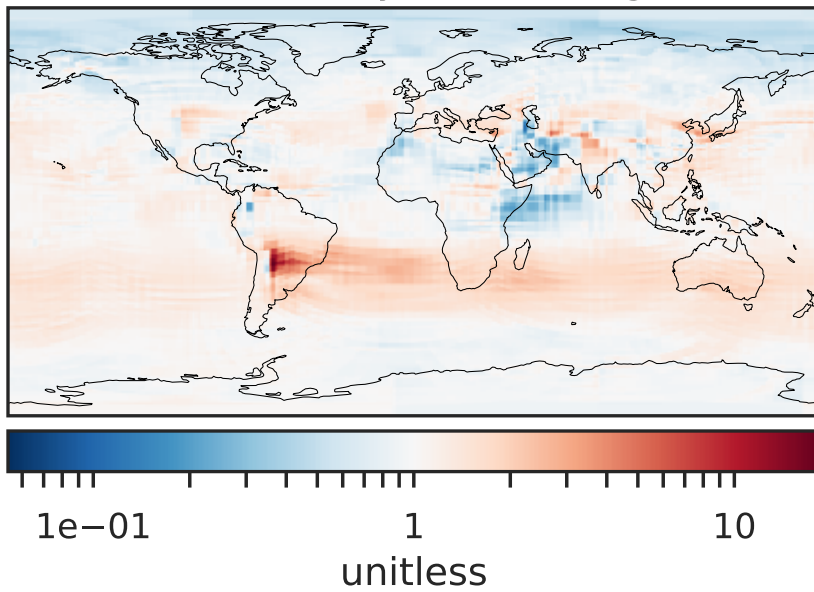
Difference (1x1.25)
Dev - Ref, Dynamic Range



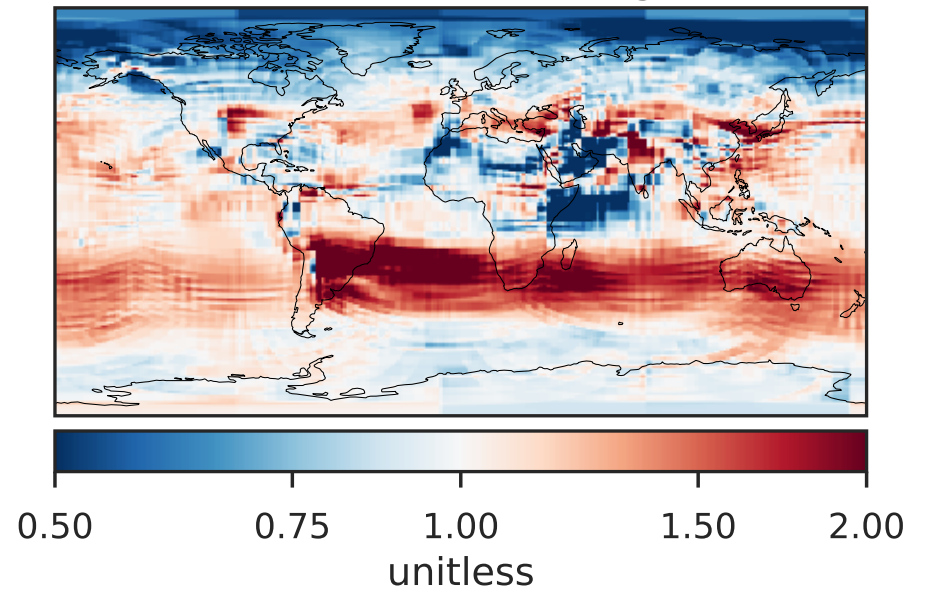
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

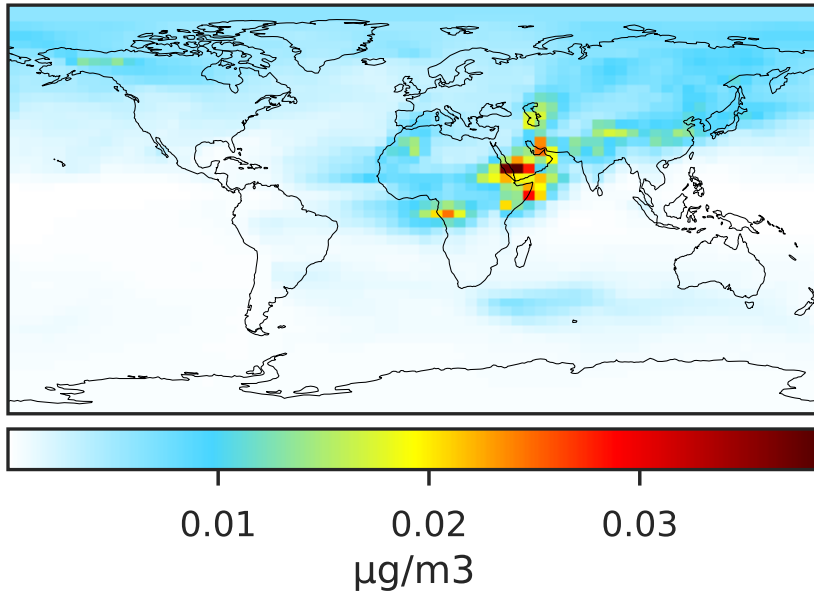


Ratio (1x1.25)
Dev/Ref, Fixed Range

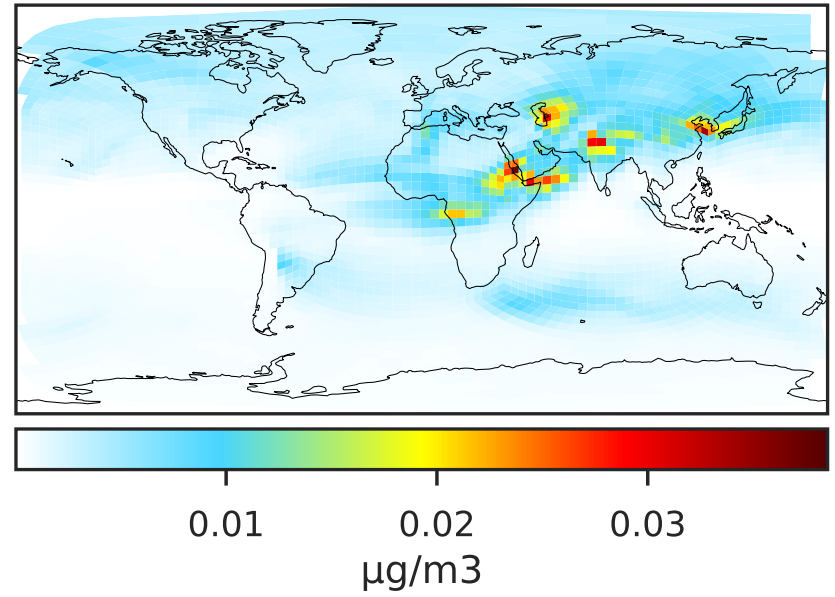


SpeciesConcVV_BCPI (Jul2019)

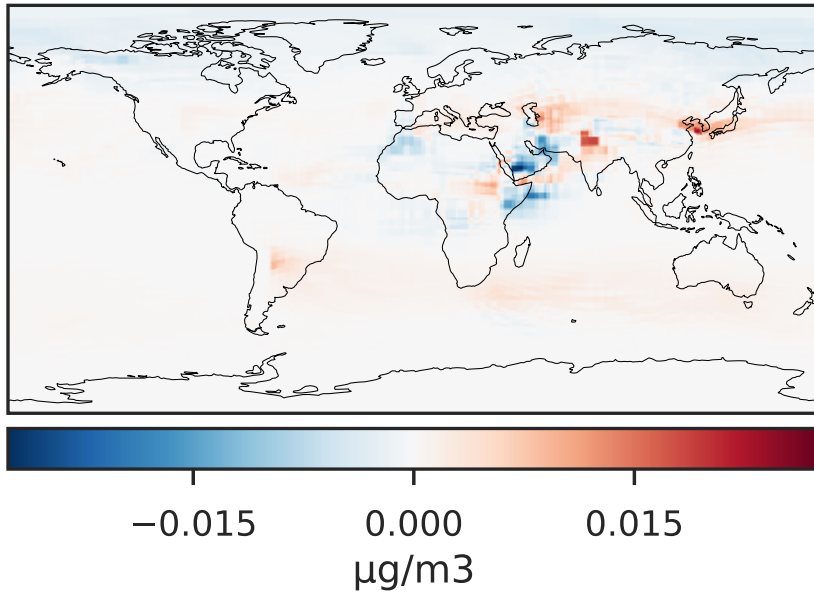
GCC_14.2.0 (Ref)
4.0x5.0



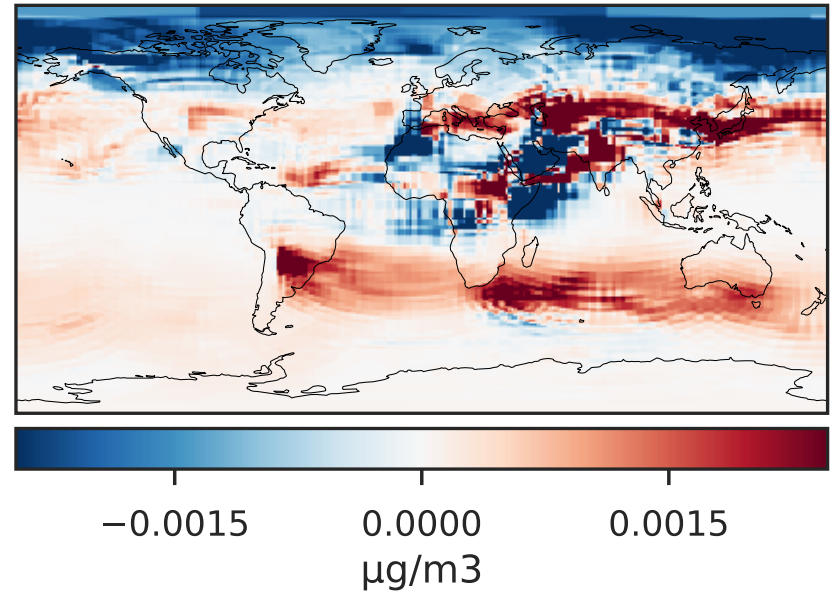
GCHP_14.2.0 (Dev)
c24



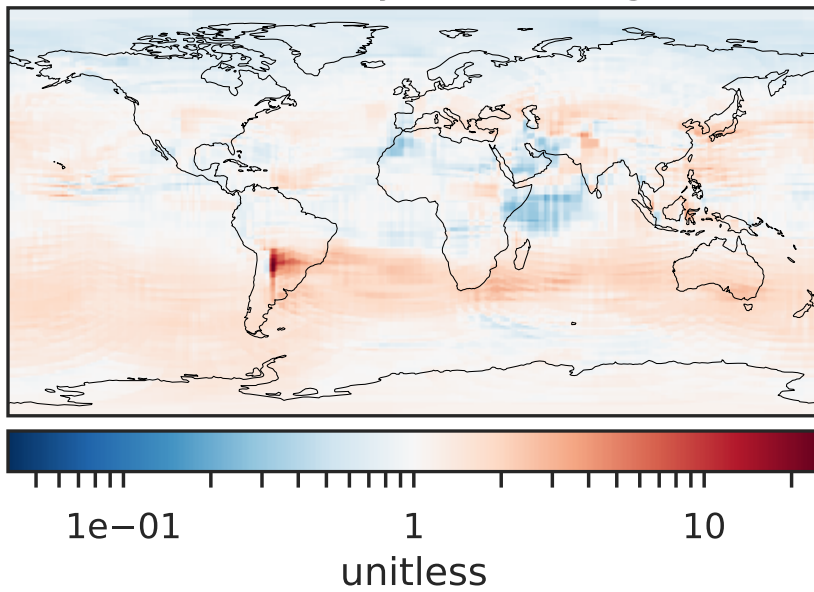
Difference (1x1.25)
Dev - Ref, Dynamic Range



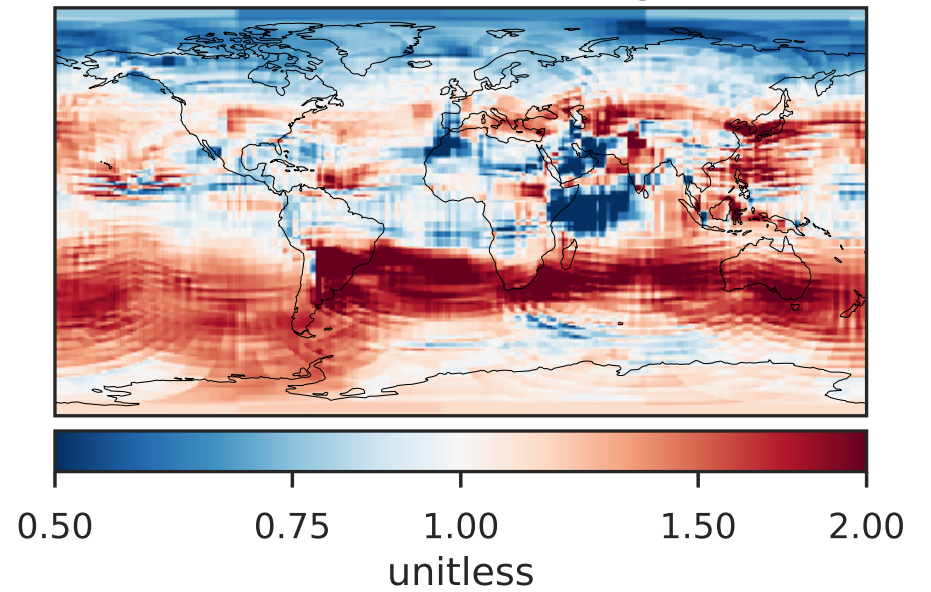
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

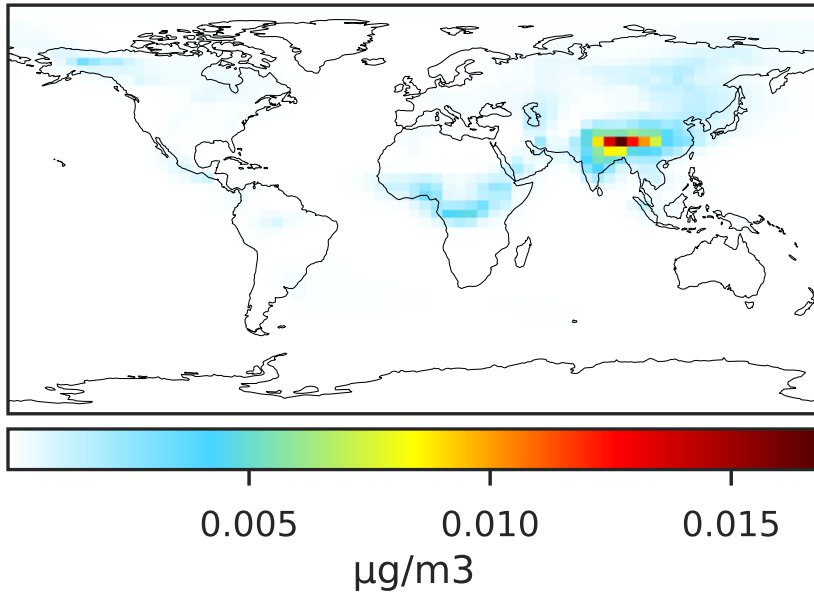


Ratio (1x1.25)
Dev/Ref, Fixed Range

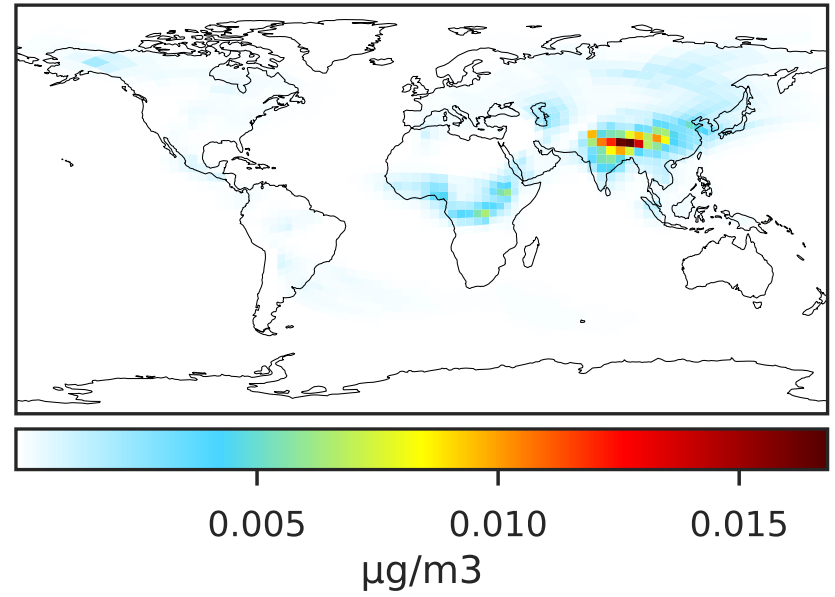


SpeciesConcVV_BCPO (Jul2019)

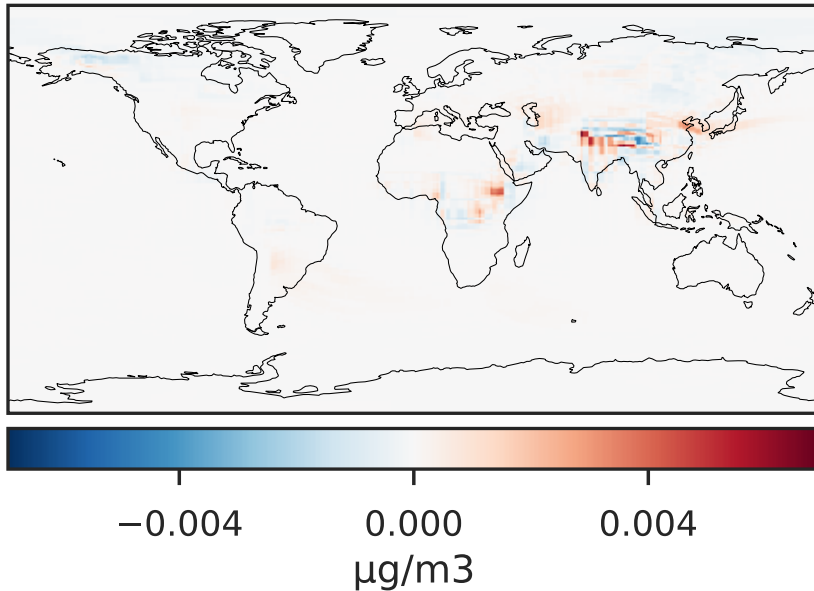
GCC_14.2.0 (Ref)
4.0x5.0



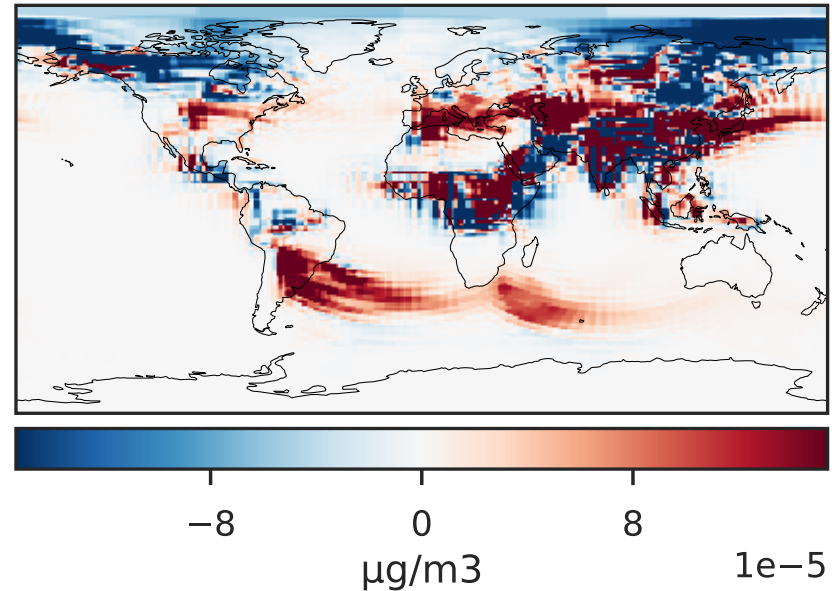
GCHP_14.2.0 (Dev)
c24



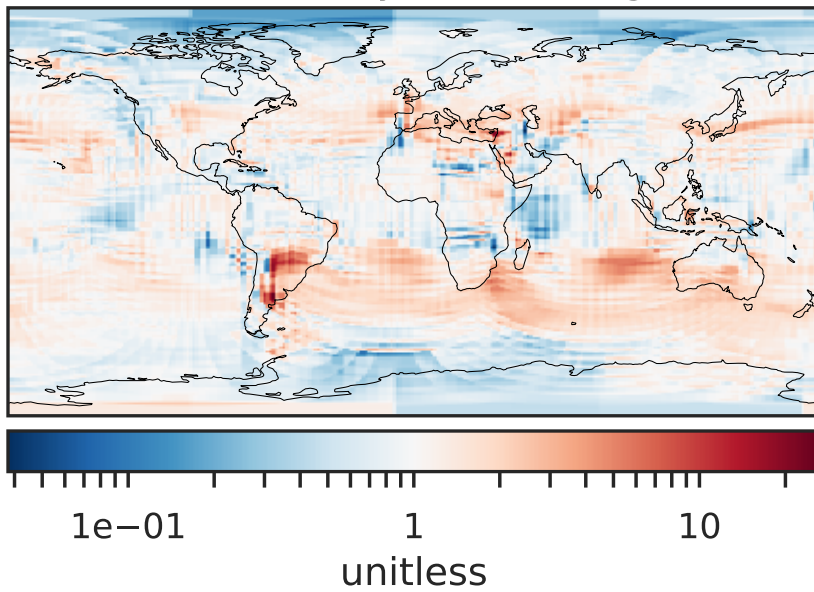
Difference (1x1.25)
Dev - Ref, Dynamic Range



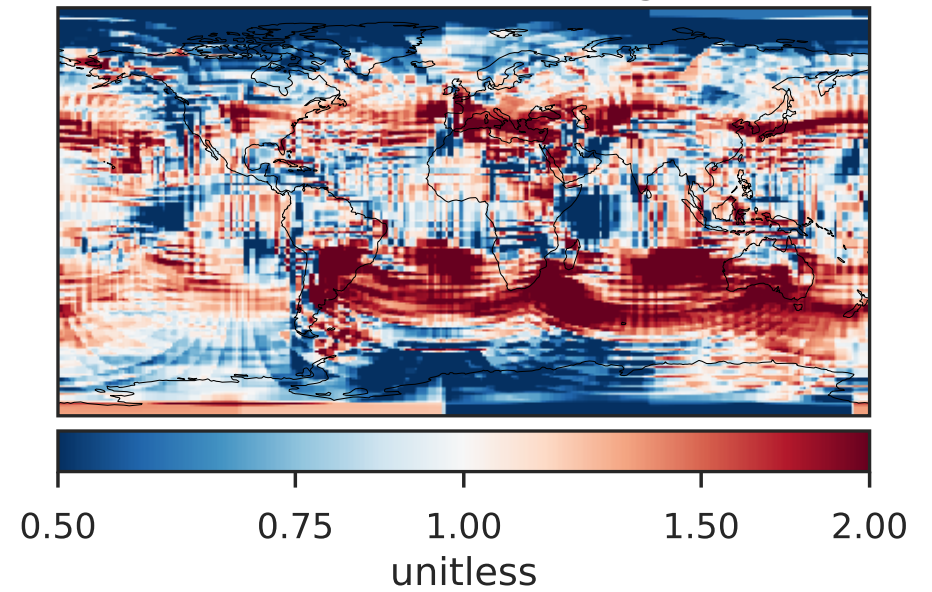
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

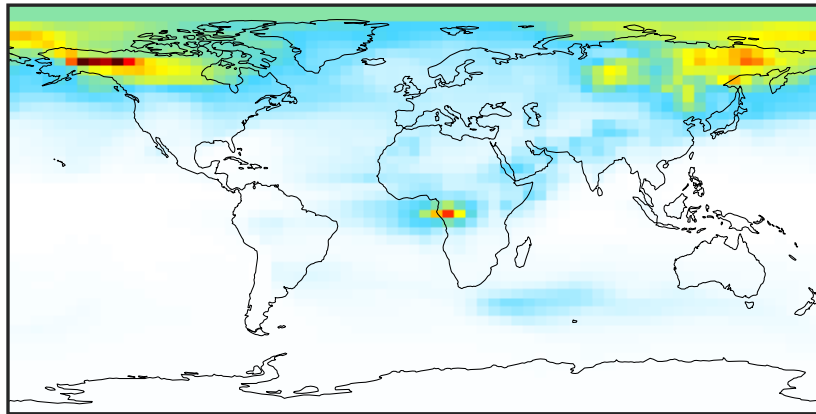


Ratio (1x1.25)
Dev/Ref, Fixed Range



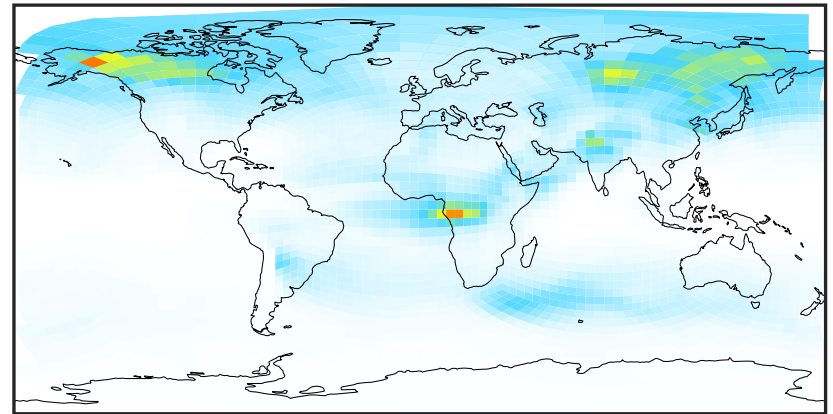
SpeciesConcVV_OCPI (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



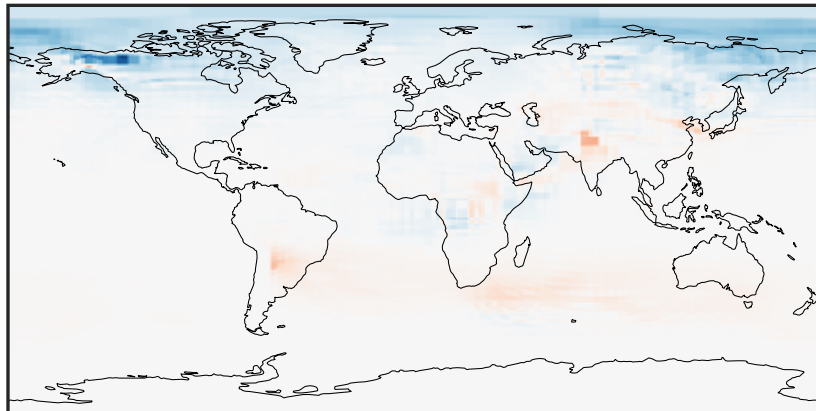
0.0001 0.0539 0.1079 0.1618 0.2158
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



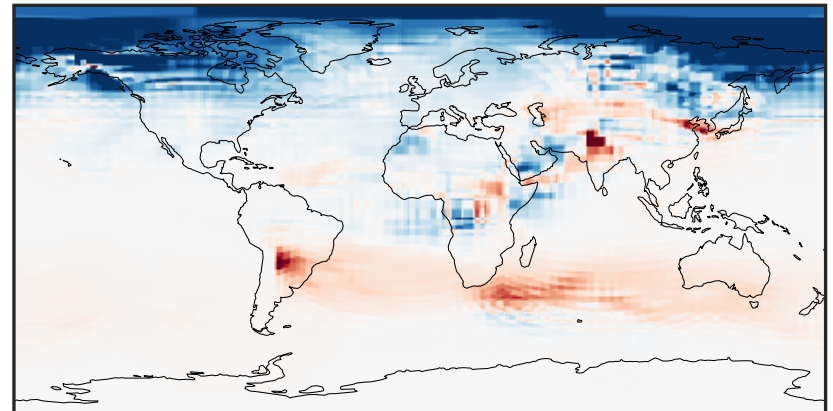
0.0001 0.0539 0.1079 0.1618 0.2158
 $\mu\text{g}/\text{m}^3$

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



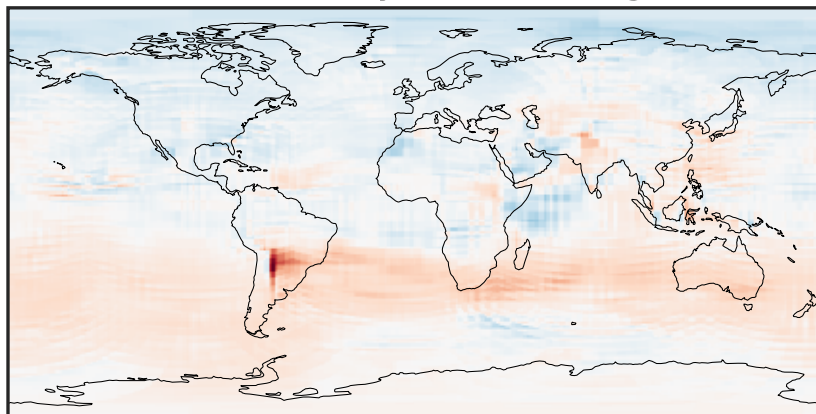
-0.1442 -0.0721 0.0000 0.0721 0.1442
 $\mu\text{g}/\text{m}^3$

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



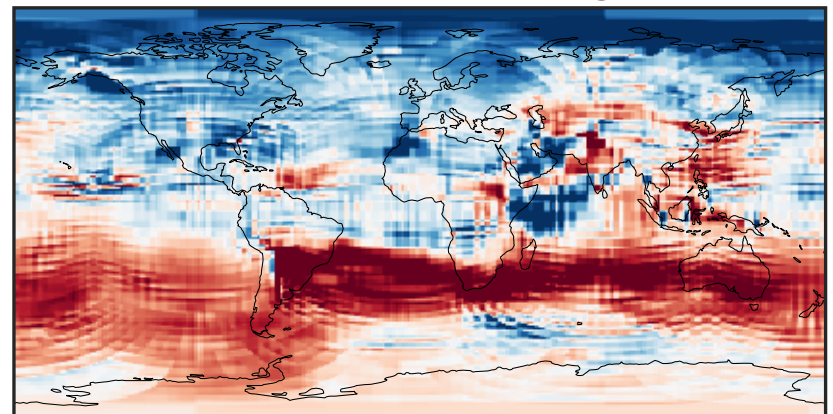
-0.02 0.00 0.02
 $\mu\text{g}/\text{m}^3$

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



1e-01 1 10
unitless

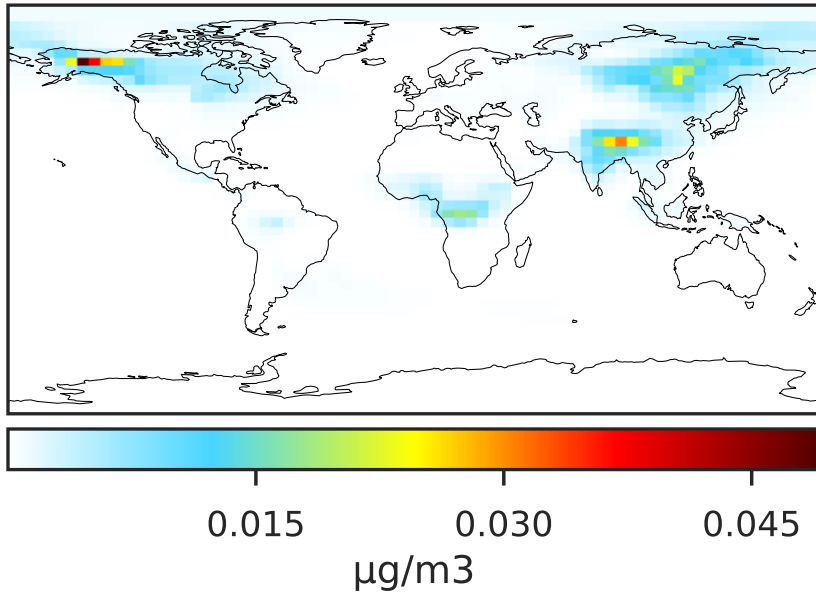
Ratio (1x1.25)
Dev/Ref, Fixed Range



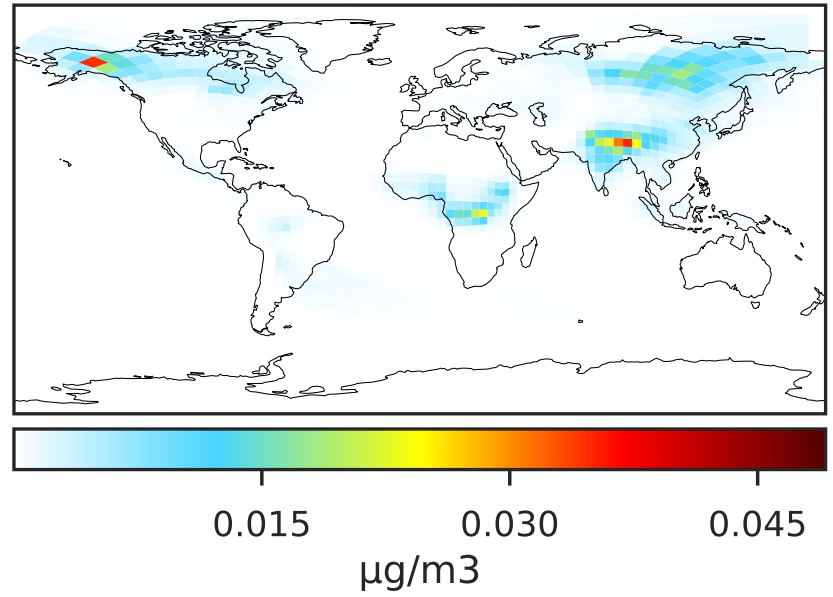
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_OCPO (Jul2019)

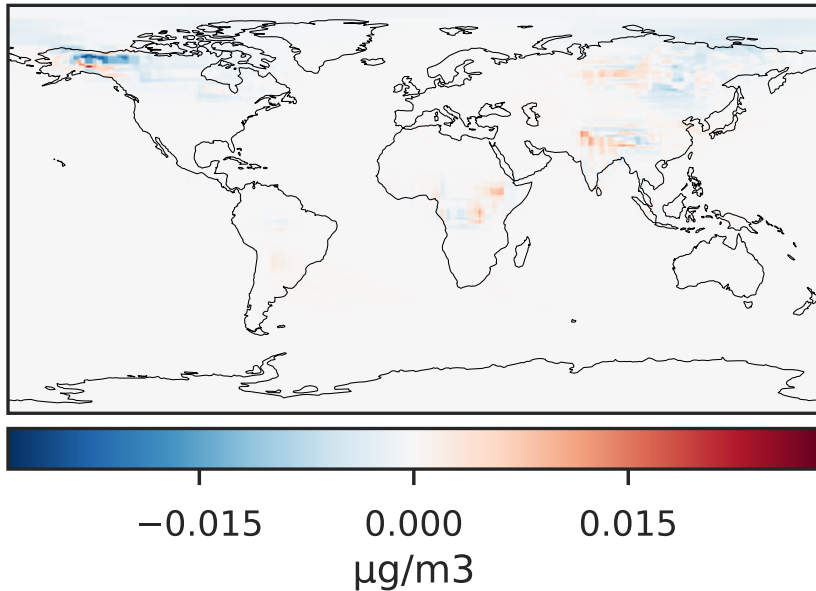
GCC_14.2.0 (Ref)
4.0x5.0



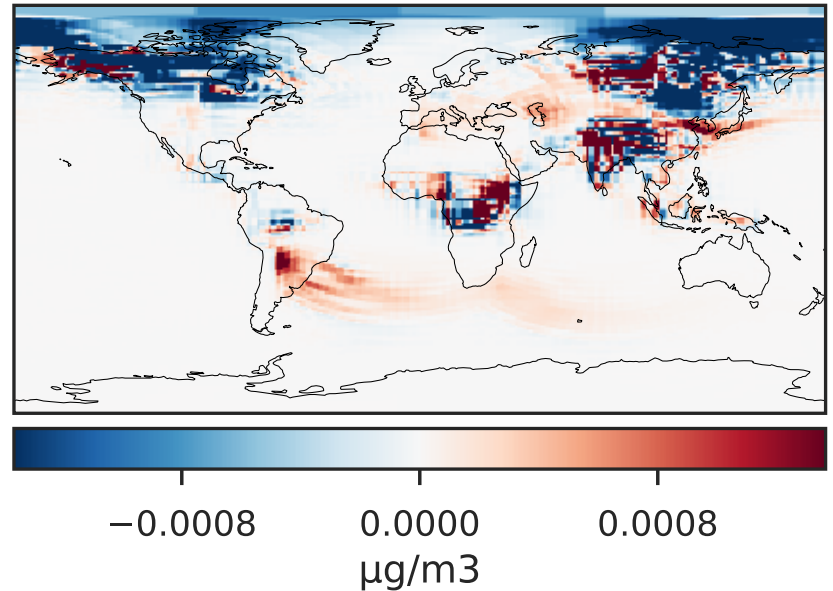
GCHP_14.2.0 (Dev)
c24



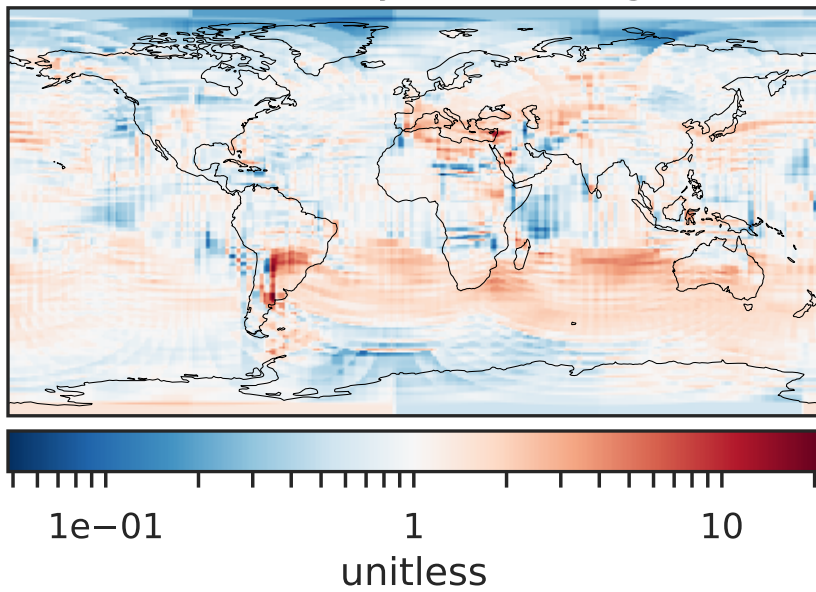
Difference (1x1.25)
Dev - Ref, Dynamic Range



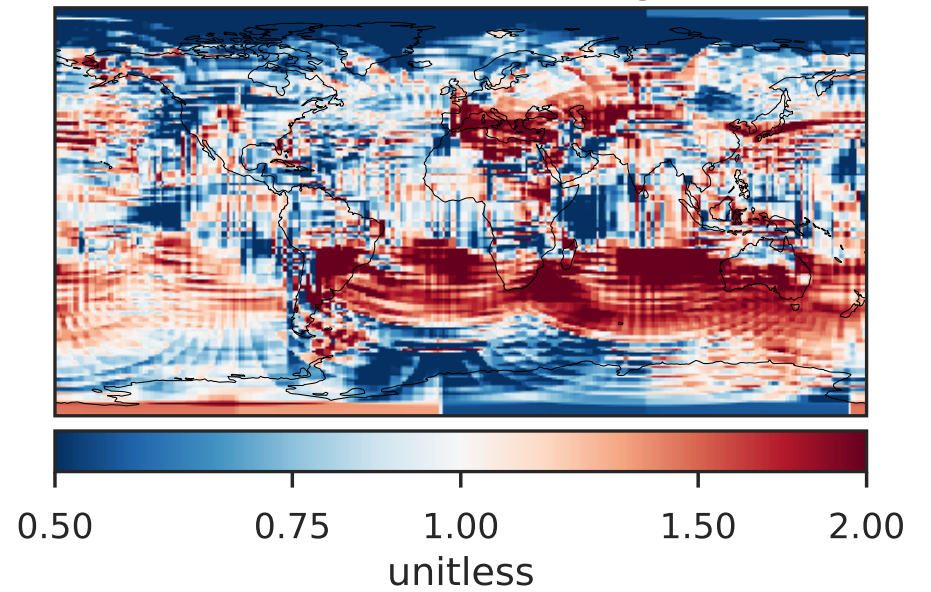
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

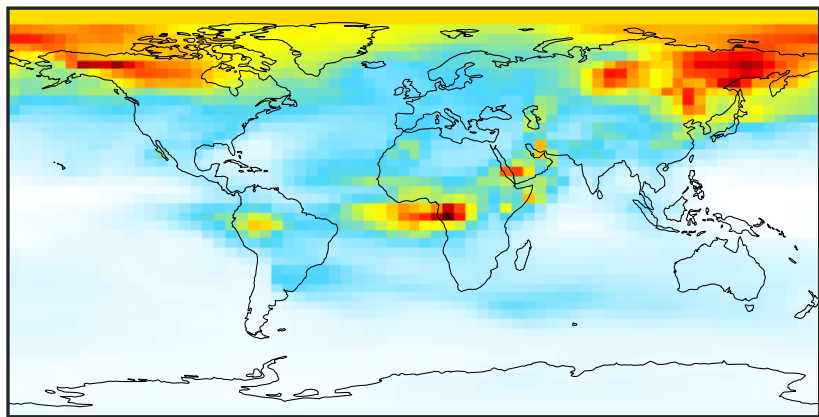


Ratio (1x1.25)
Dev/Ref, Fixed Range



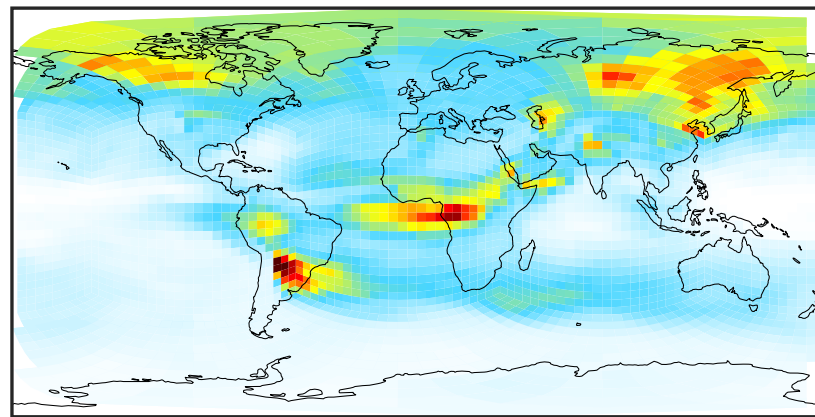
SpeciesConcVV_Complex_SOA (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



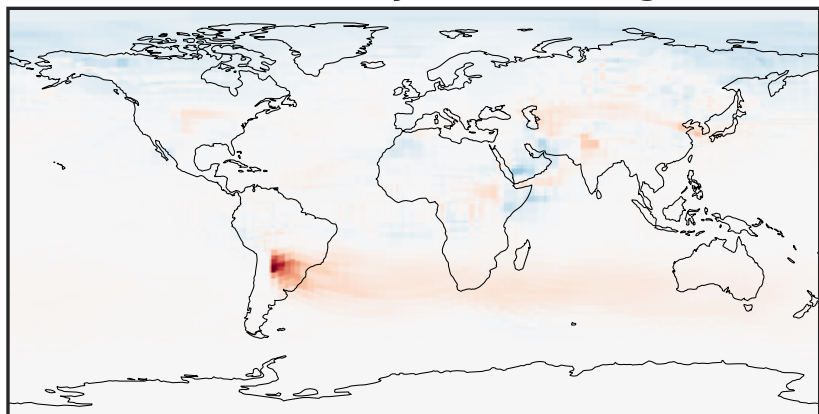
0.015 0.030 0.045
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



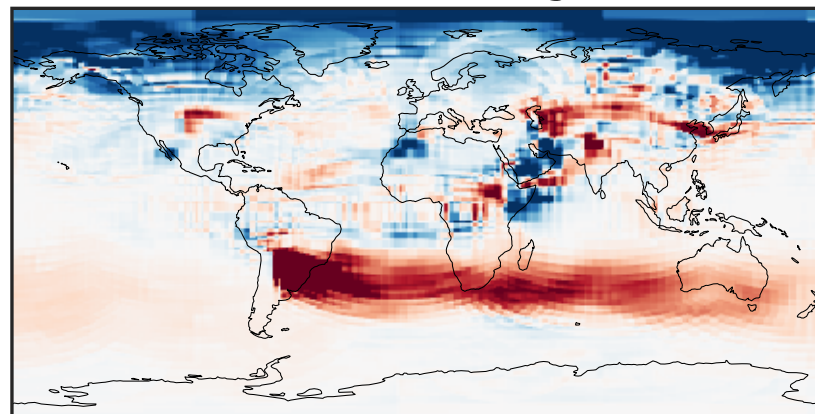
0.015 0.030 0.045
 $\mu\text{g}/\text{m}^3$

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



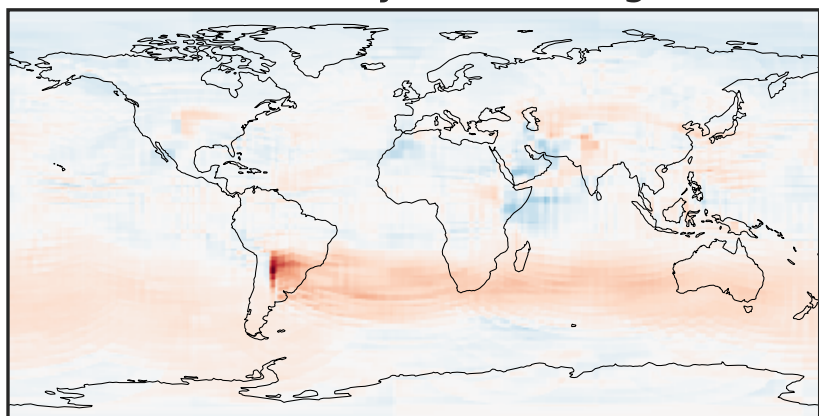
-0.0648 -0.0324 0.0000 0.0324 0.0648
 $\mu\text{g}/\text{m}^3$

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



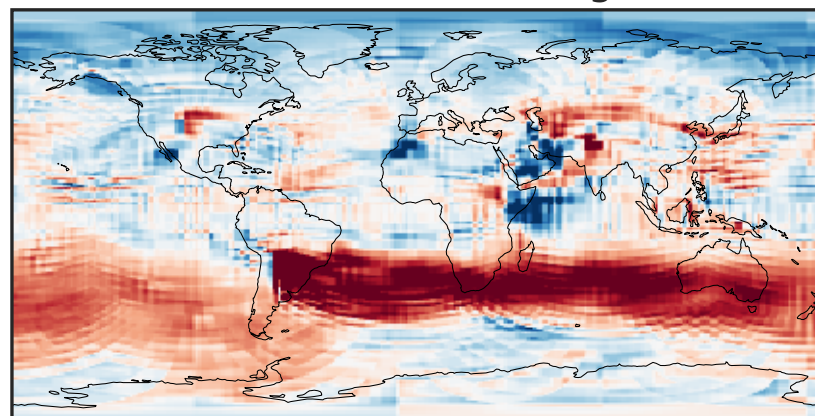
-0.005 0.000 0.005
 $\mu\text{g}/\text{m}^3$

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



1e-01 1 10
unitless

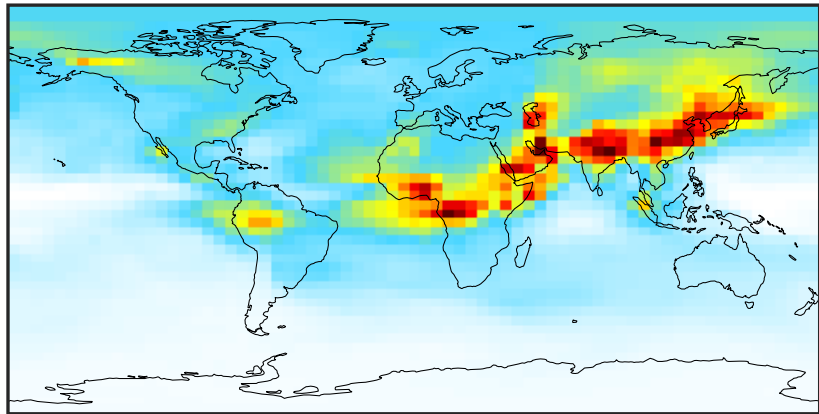
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

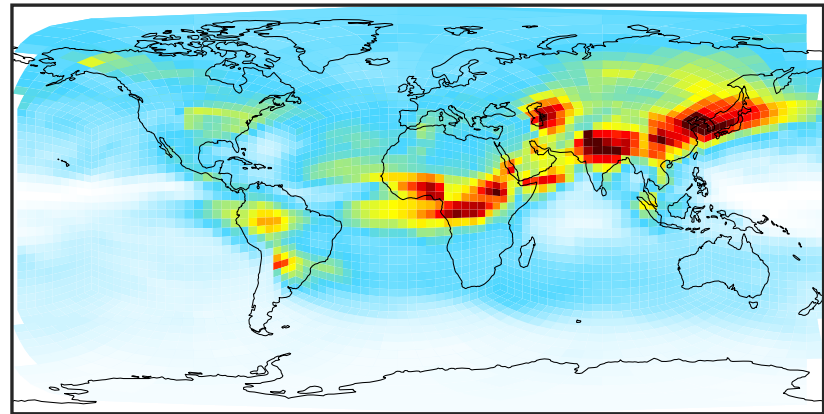
SpeciesConcVV_Simple_SOA (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



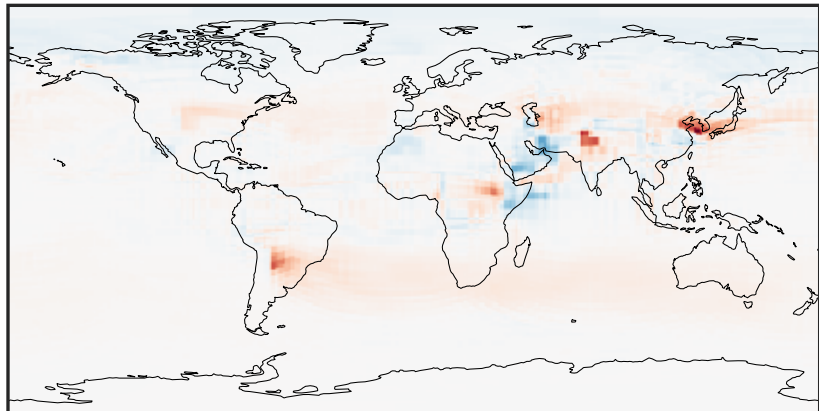
0.0023 0.0769 0.1538 0.2306 0.3098
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



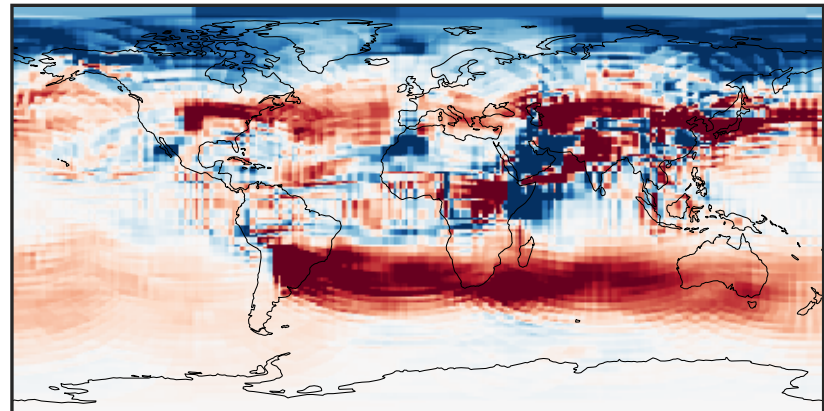
0.0023 0.0769 0.1538 0.2306 0.3098
 $\mu\text{g}/\text{m}^3$

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



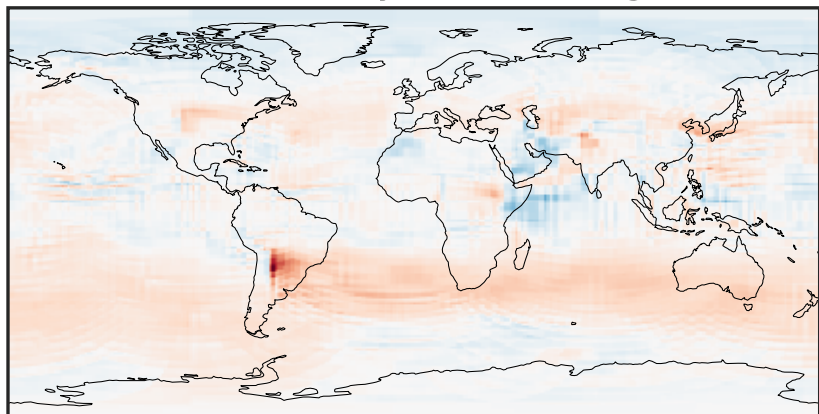
-0.3051 -0.1525 0.0000 0.1525 0.3051
 $\mu\text{g}/\text{m}^3$

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



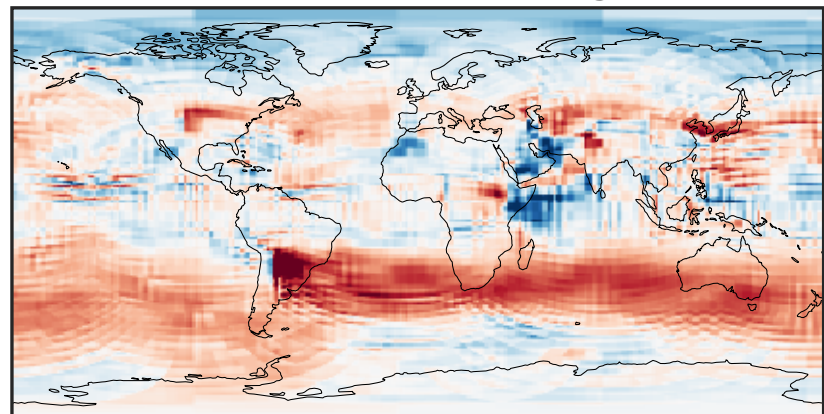
-0.015 0.000 0.015
 $\mu\text{g}/\text{m}^3$

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



0.126 0.563 1.000 4.454 7.909
unitless

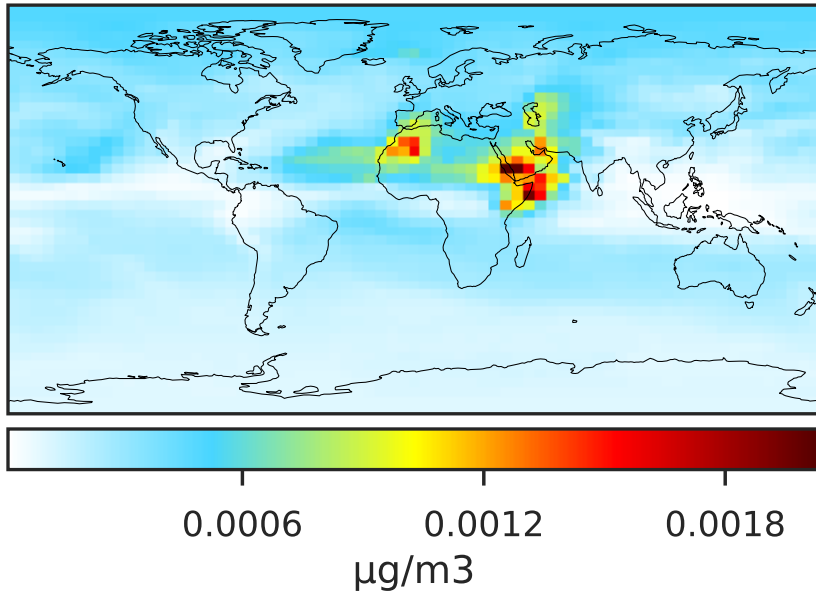
Ratio (1x1.25)
Dev/Ref, Fixed Range



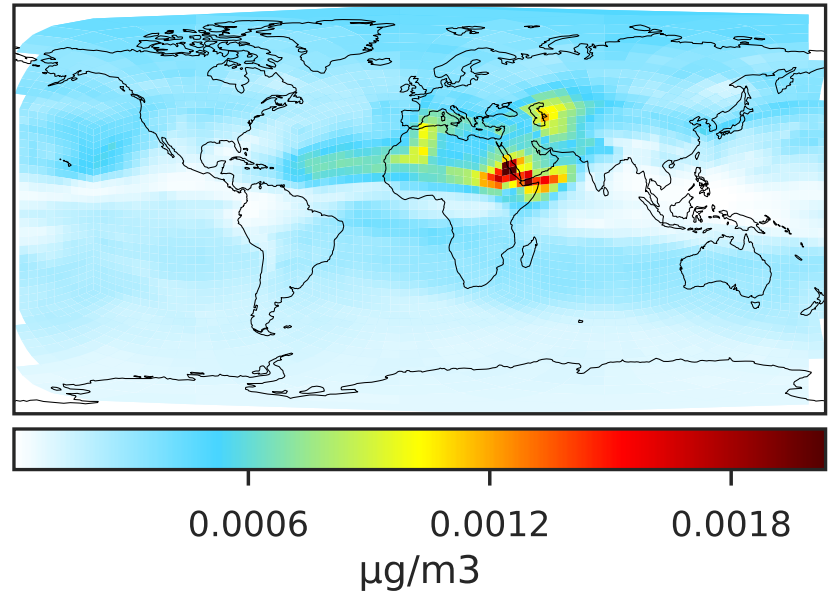
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_AERI (Jul2019)

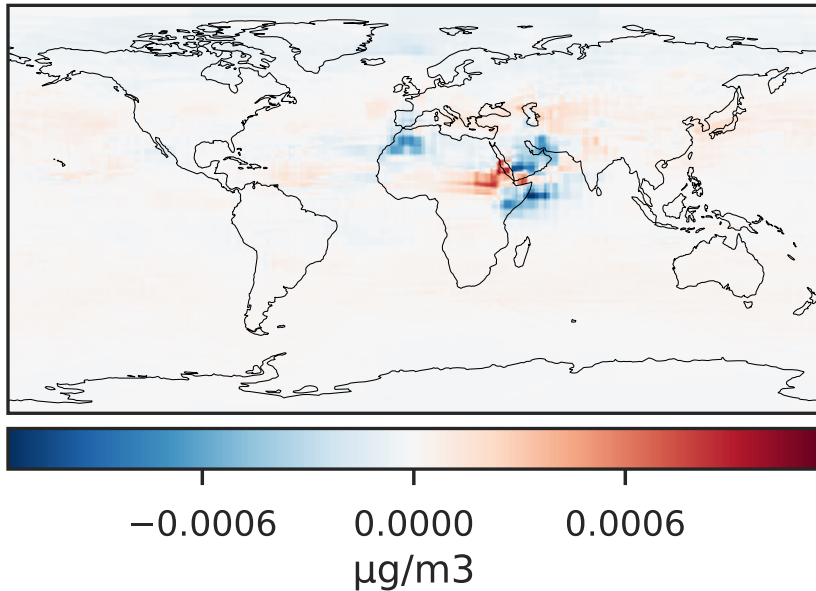
GCC_14.2.0 (Ref)
4.0x5.0



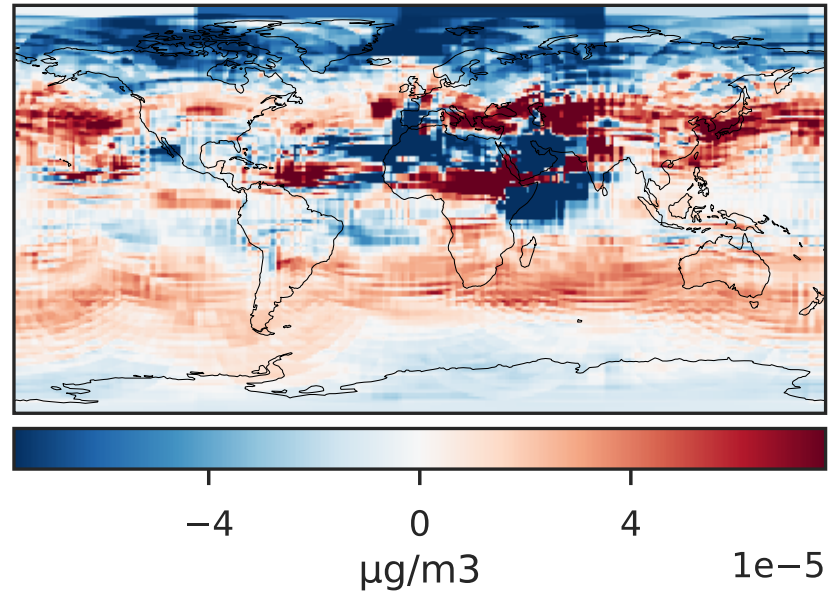
GCHP_14.2.0 (Dev)
c24



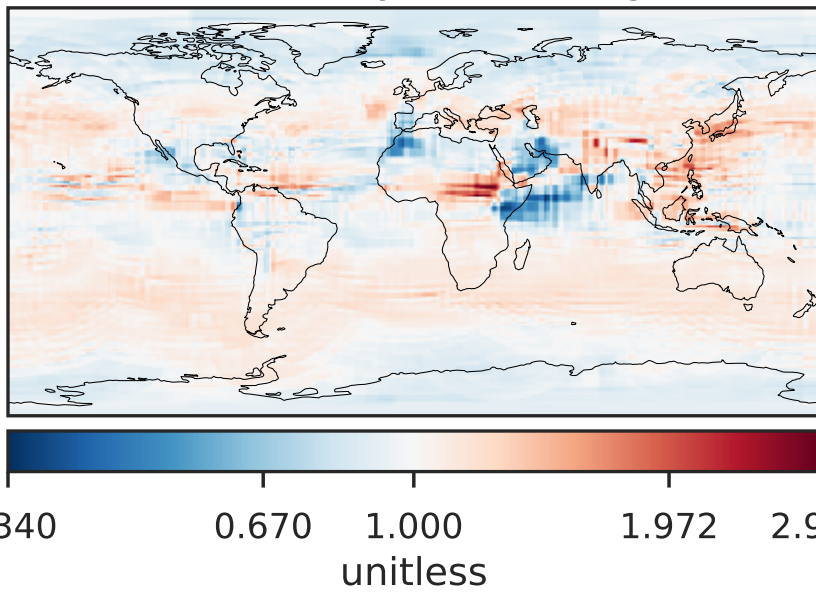
Difference (1x1.25)
Dev - Ref, Dynamic Range



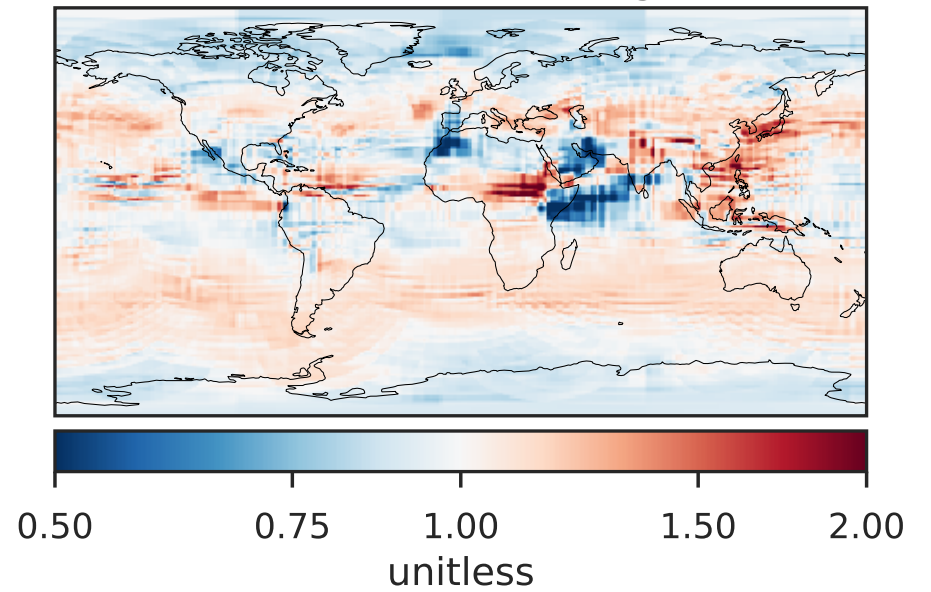
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

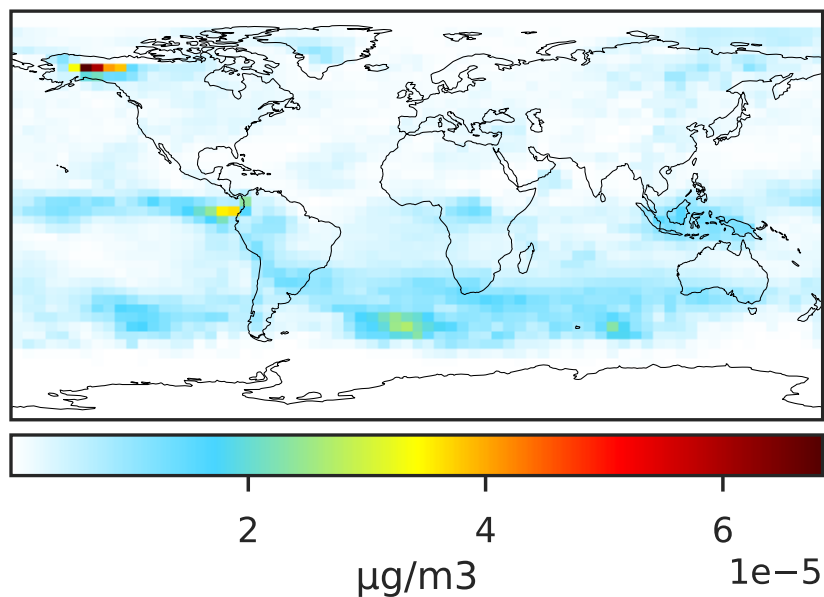


Ratio (1x1.25)
Dev/Ref, Fixed Range

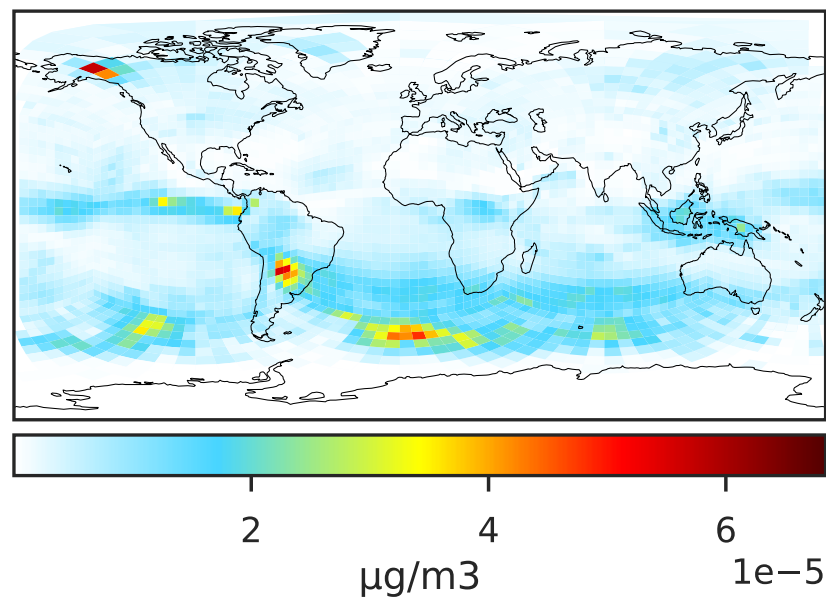


SpeciesConcVV_BrSALA (Jul2019)

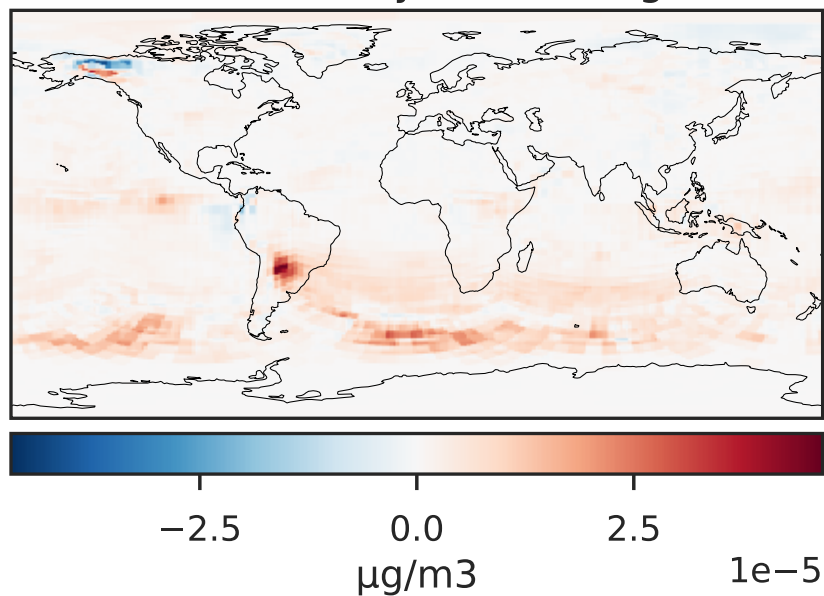
GCC_14.2.0 (Ref)
4.0x5.0



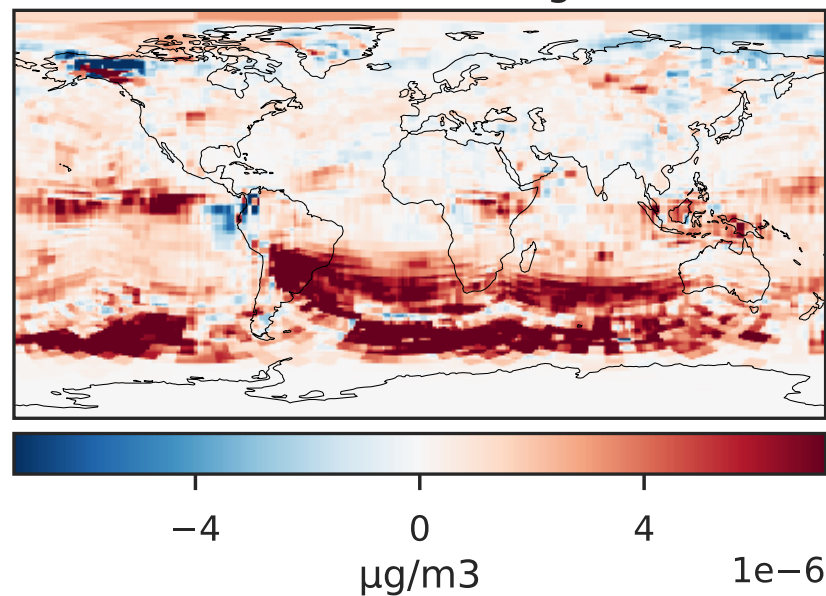
GCHP_14.2.0 (Dev)
c24



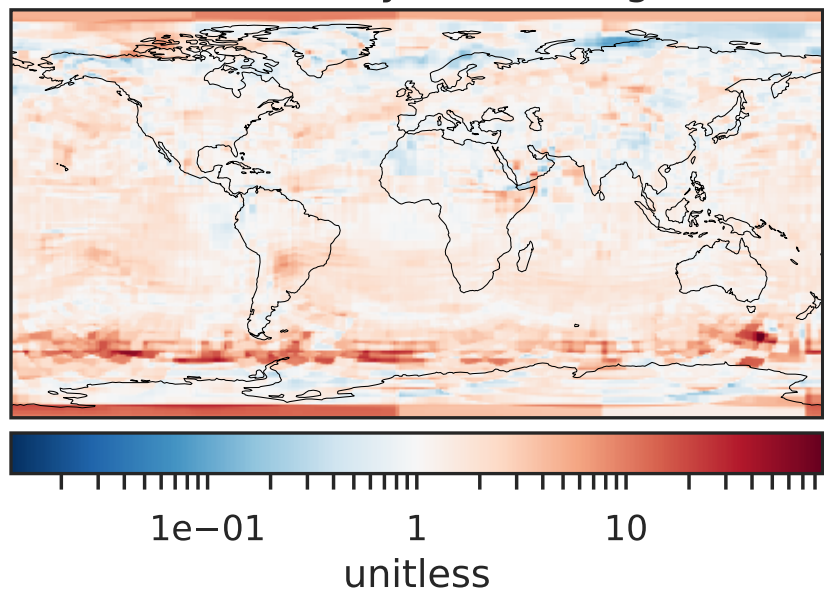
Difference (1x1.25)
Dev - Ref, Dynamic Range



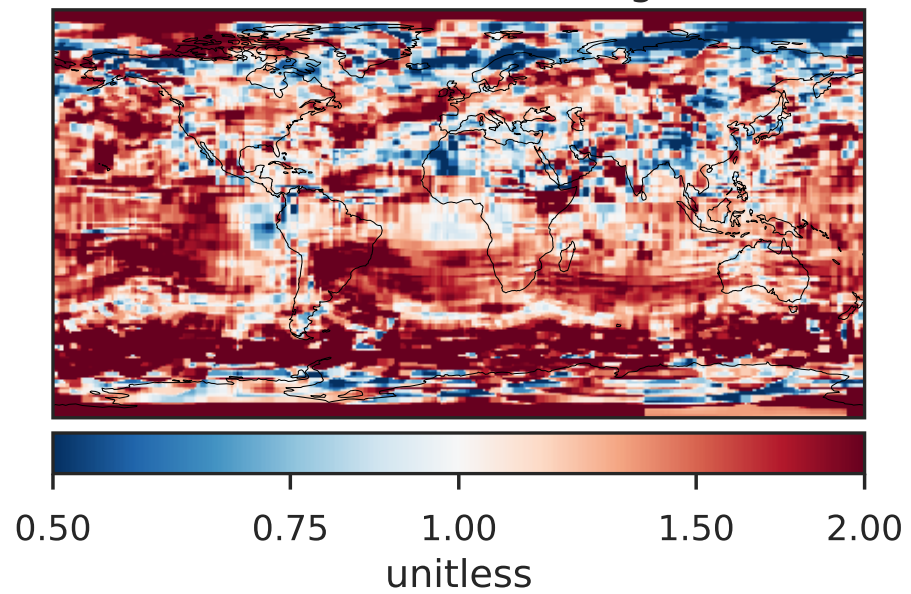
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

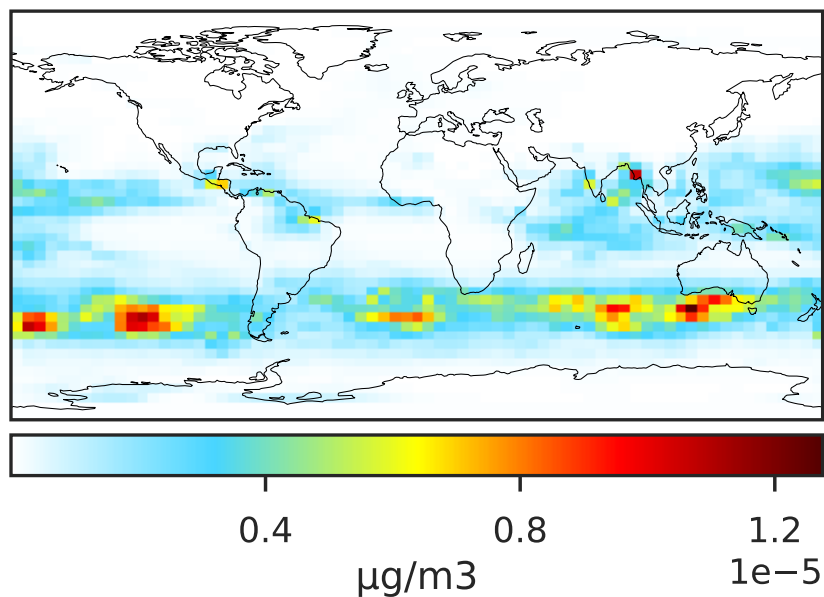


Ratio (1x1.25)
Dev/Ref, Fixed Range

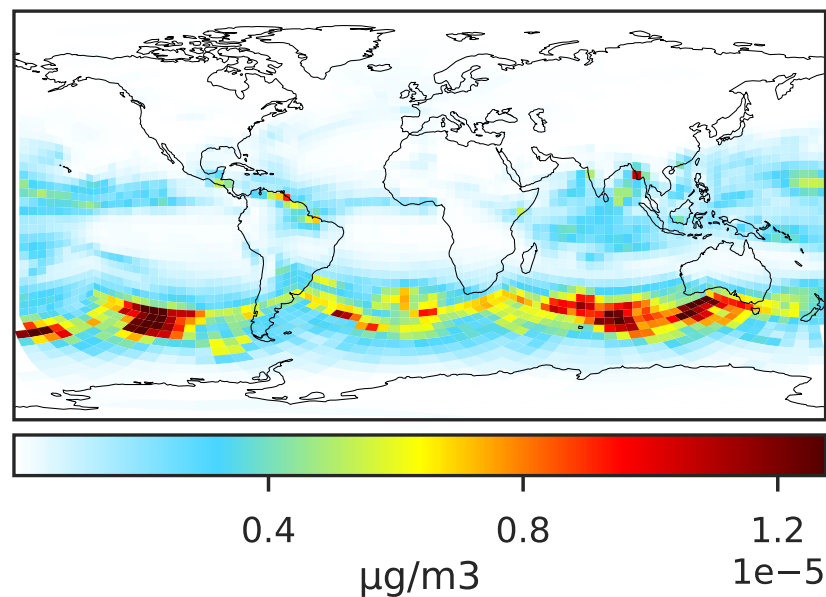


SpeciesConcVV_BrSALC (Jul2019)

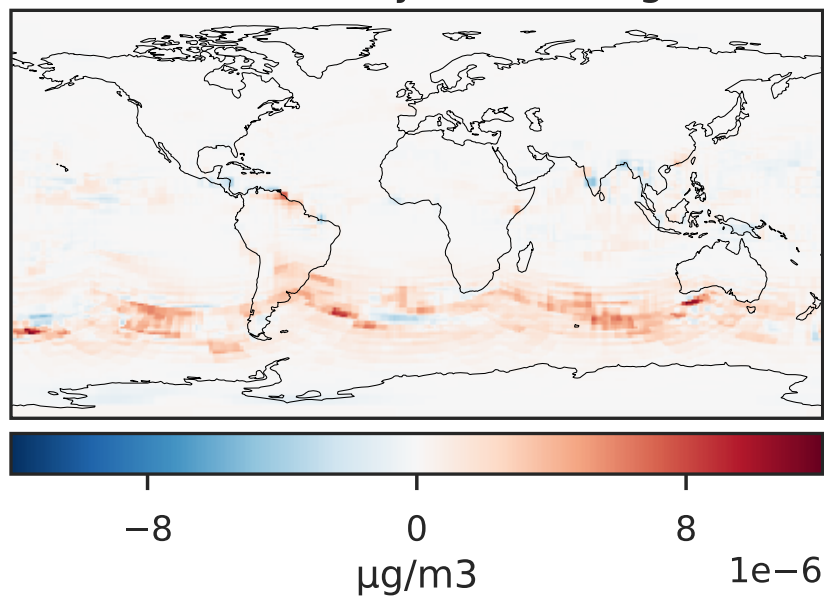
GCC_14.2.0 (Ref)
4.0x5.0



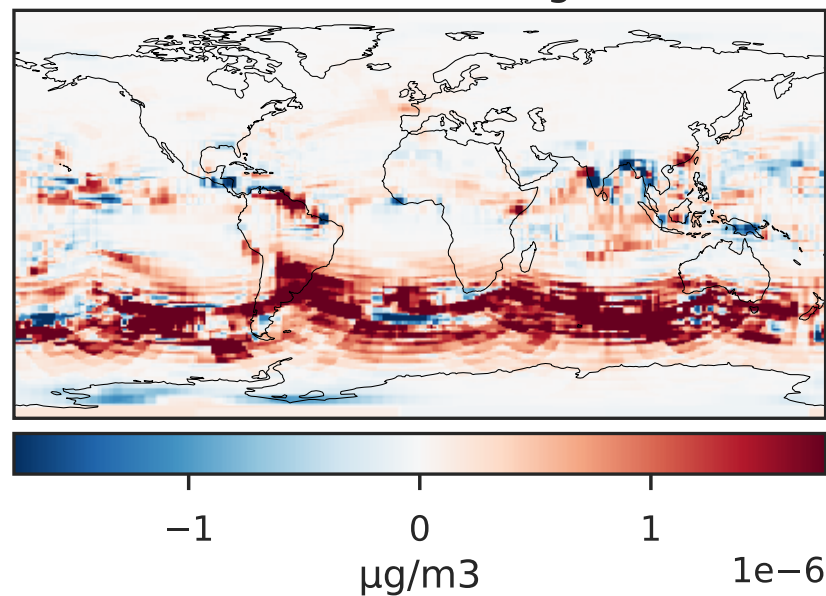
GCHP_14.2.0 (Dev)
c24



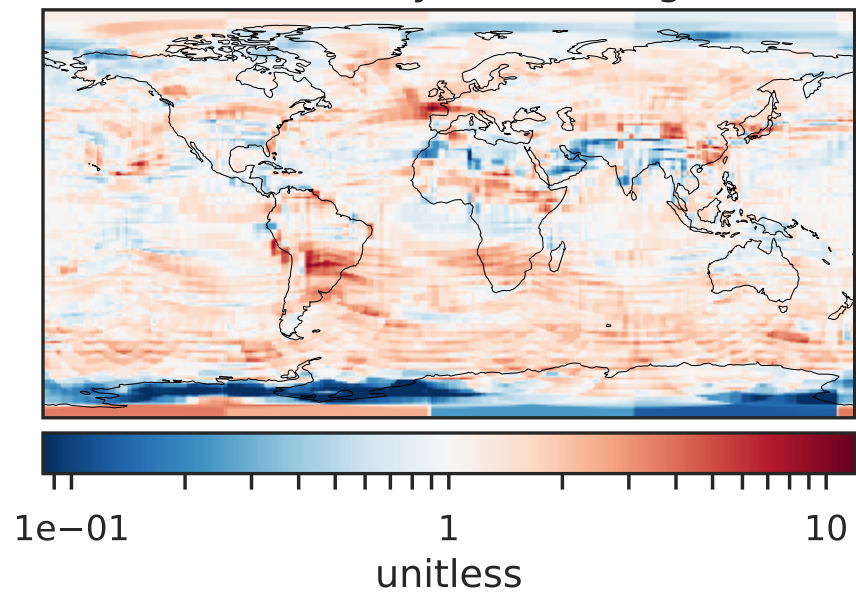
Difference (1x1.25)
Dev - Ref, Dynamic Range



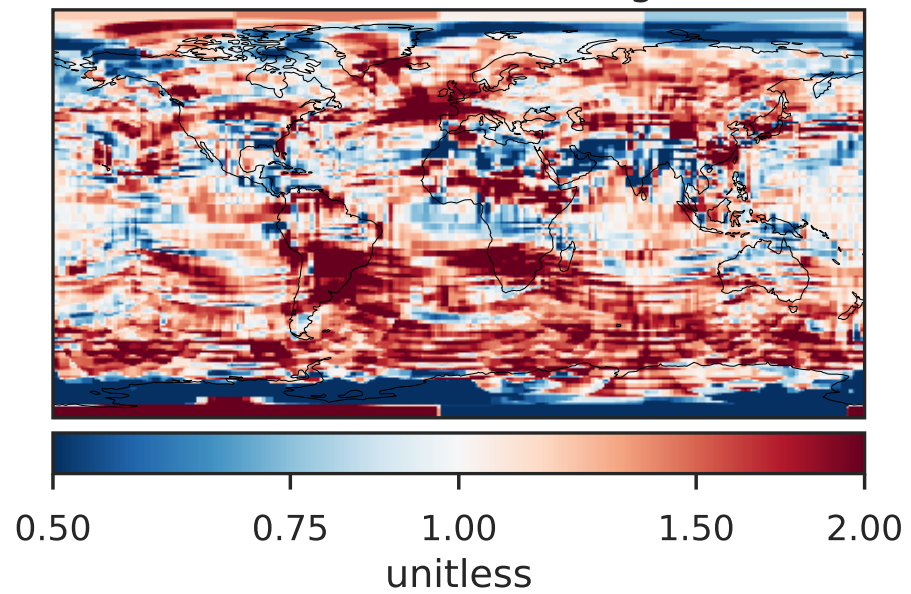
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

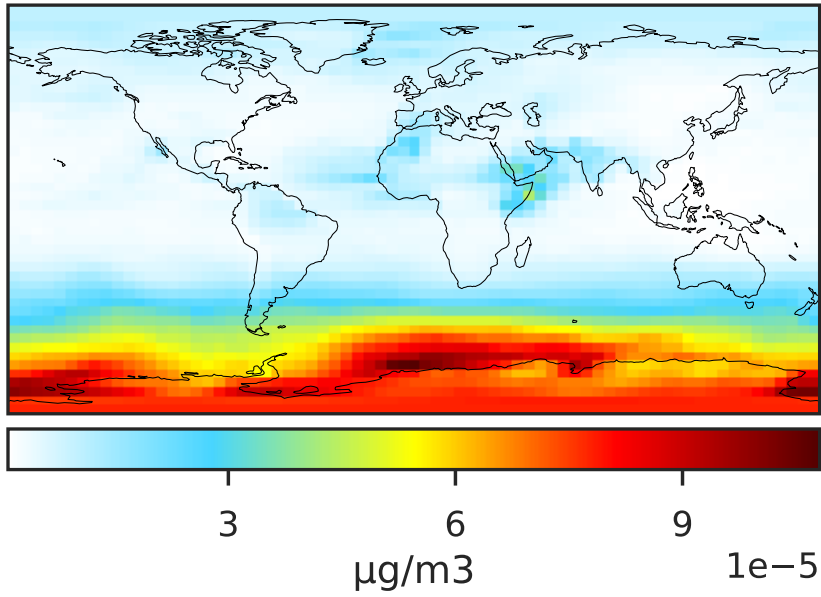


Ratio (1x1.25)
Dev/Ref, Fixed Range

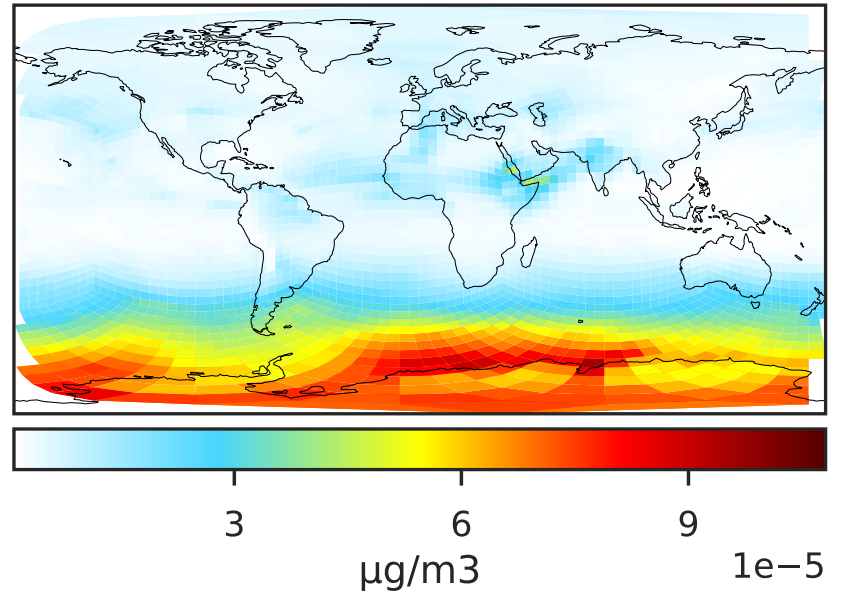


SpeciesConcVV_ISALA (Jul2019)

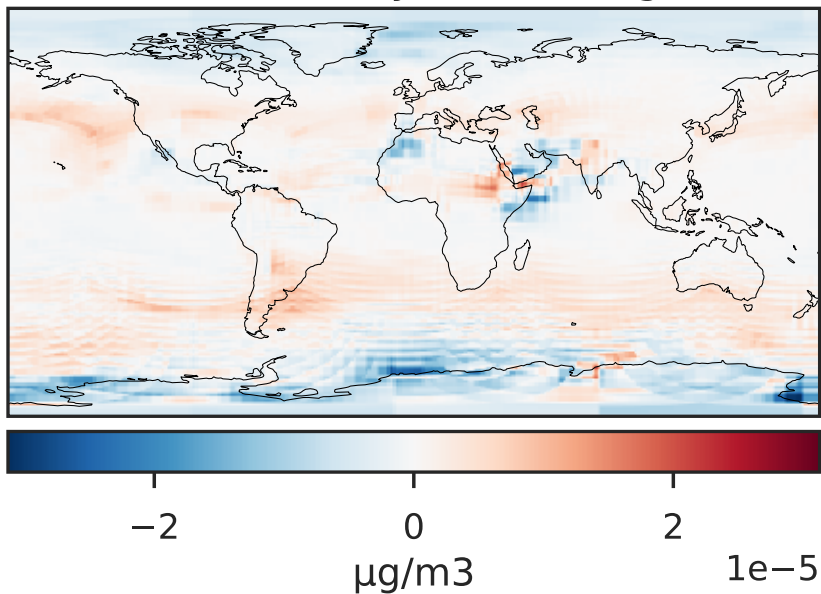
GCC_14.2.0 (Ref)
4.0x5.0



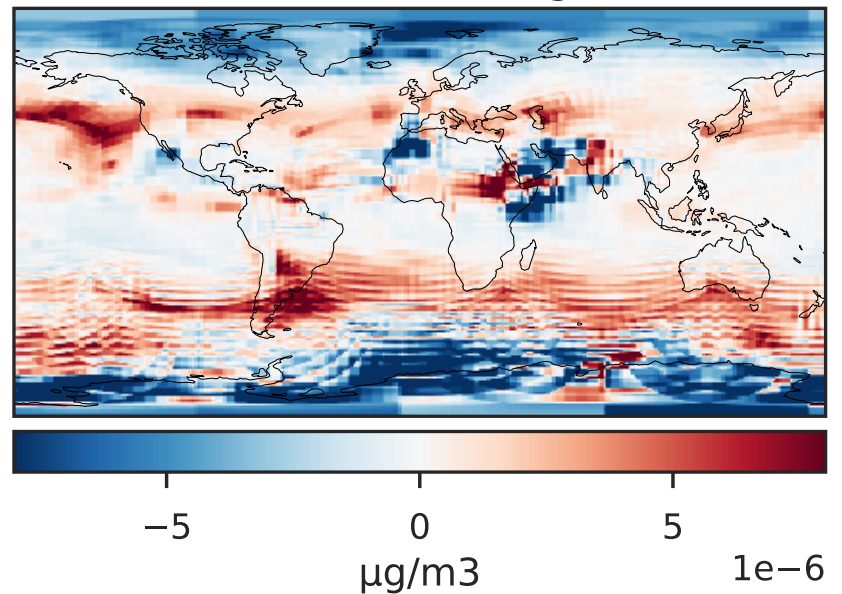
GCHP_14.2.0 (Dev)
c24



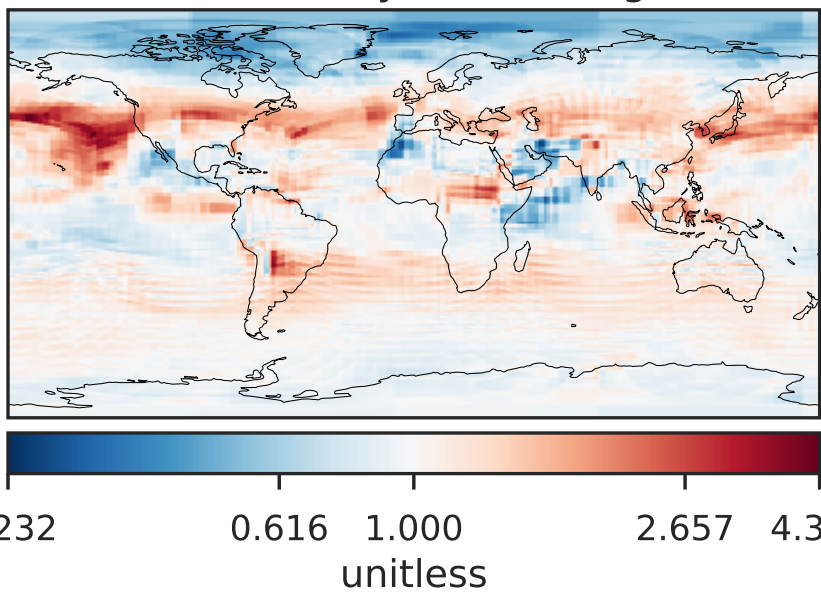
Difference (1x1.25)
Dev - Ref, Dynamic Range



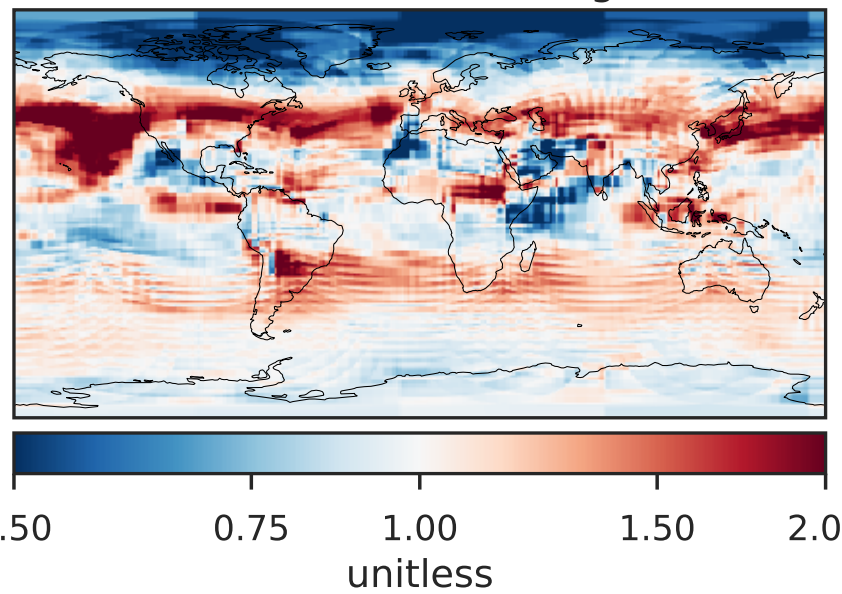
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

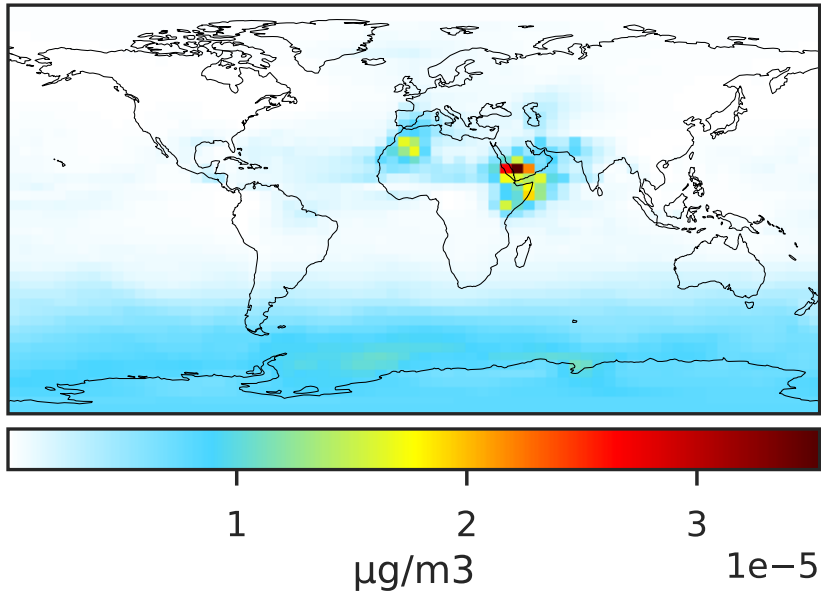


Ratio (1x1.25)
Dev/Ref, Fixed Range

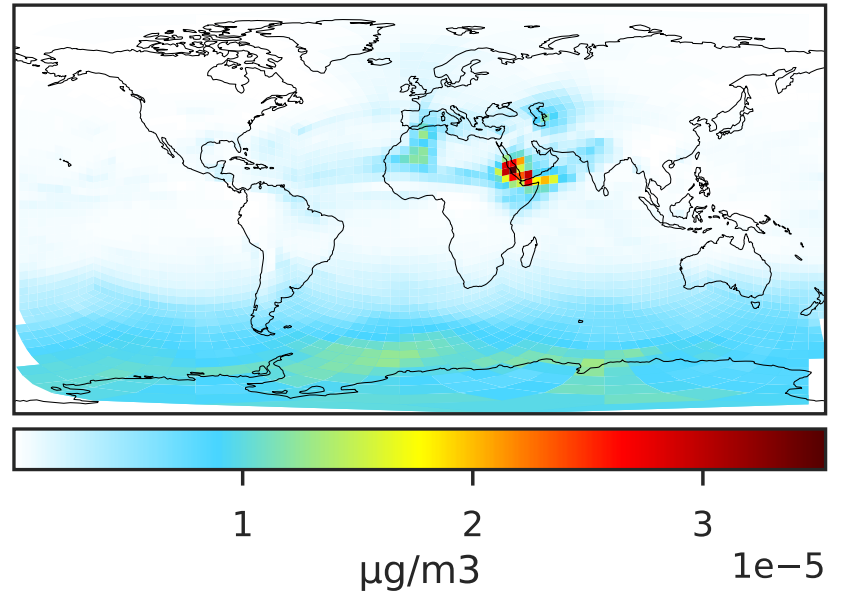


SpeciesConcVV_ISALC (Jul2019)

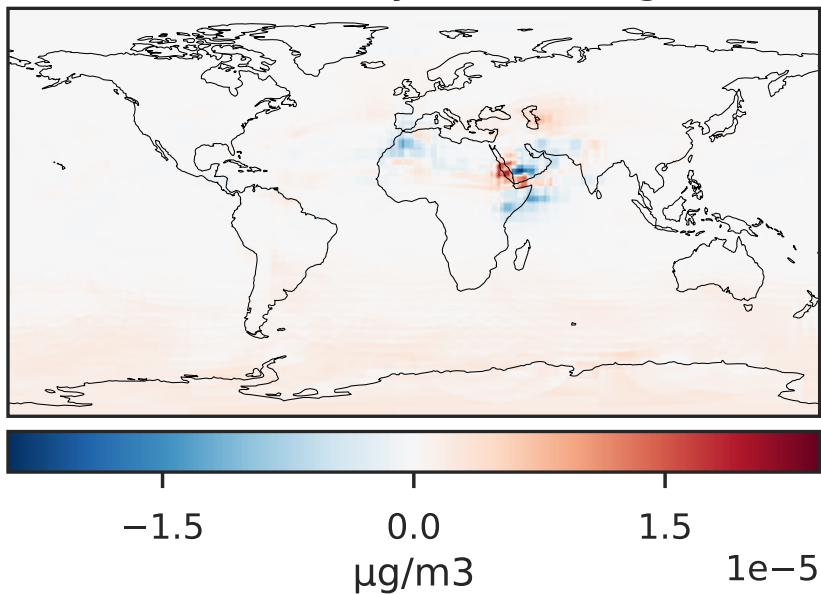
GCC_14.2.0 (Ref)
4.0x5.0



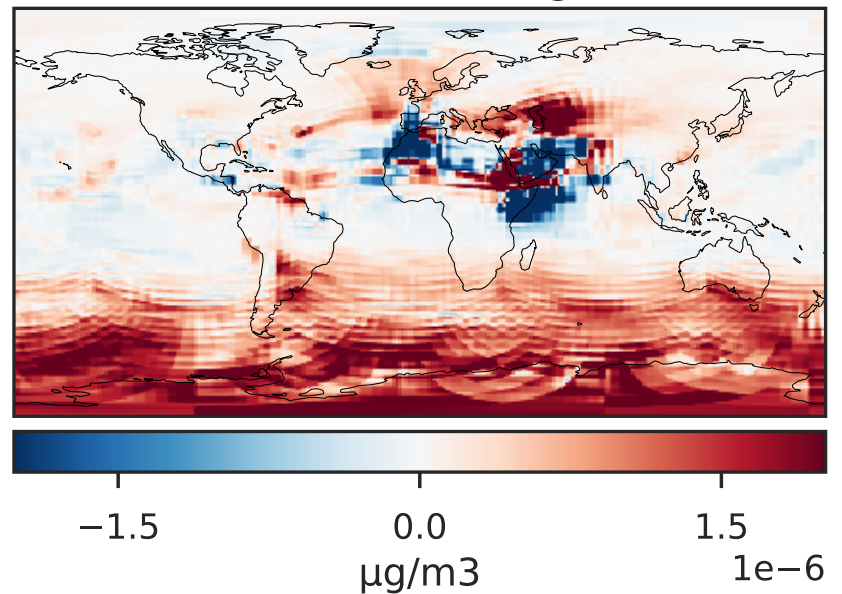
GCHP_14.2.0 (Dev)
c24



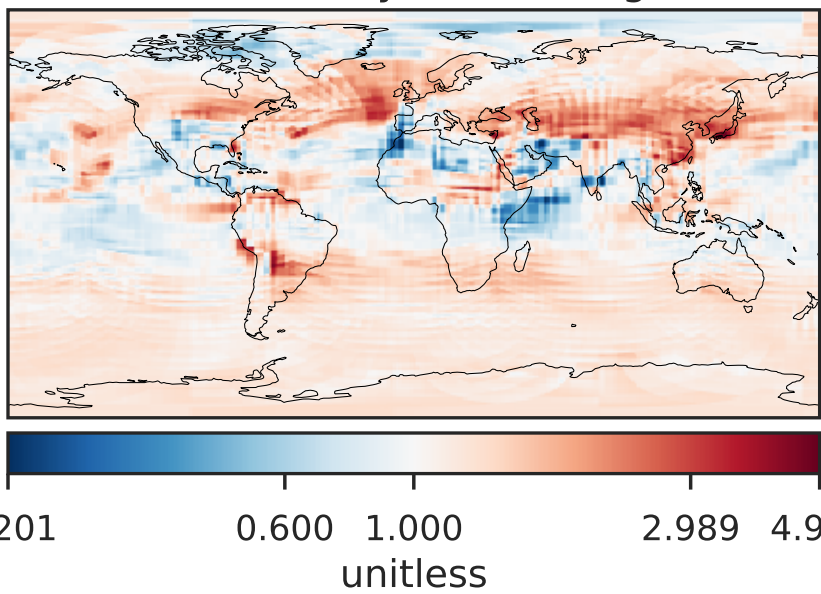
Difference (1x1.25)
Dev - Ref, Dynamic Range



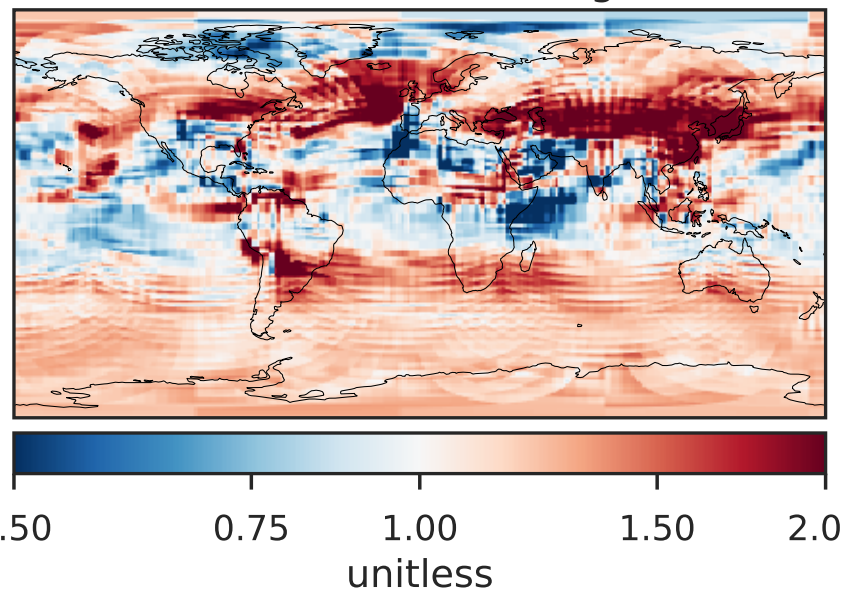
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

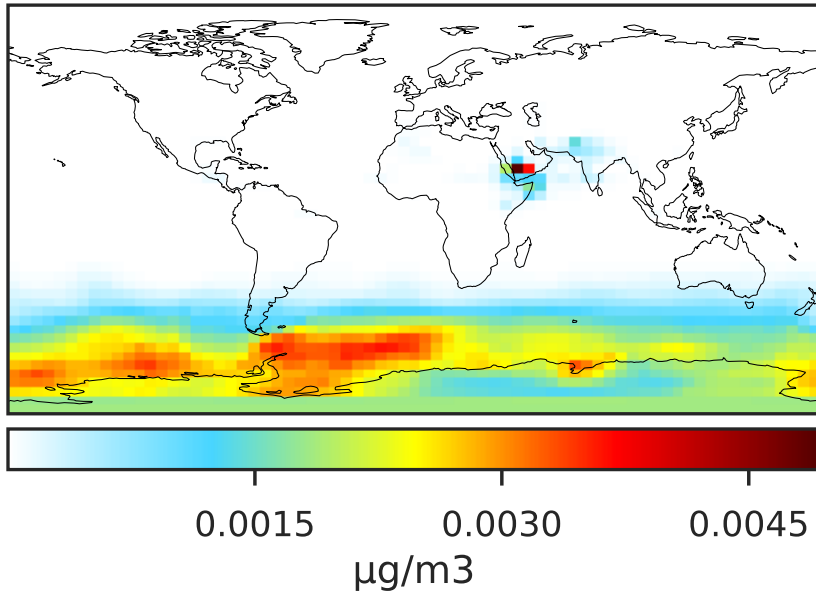


Ratio (1x1.25)
Dev/Ref, Fixed Range

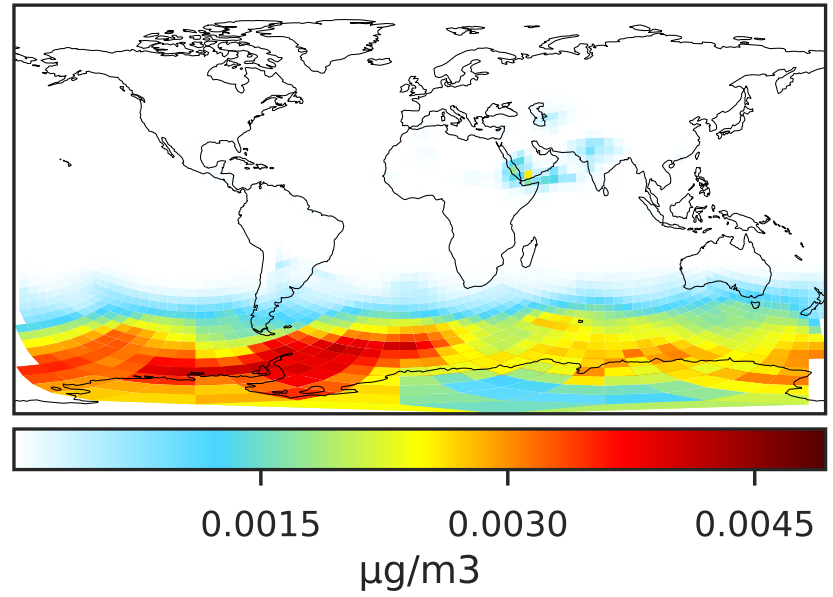


SpeciesConcVV_NITs (Jul2019)

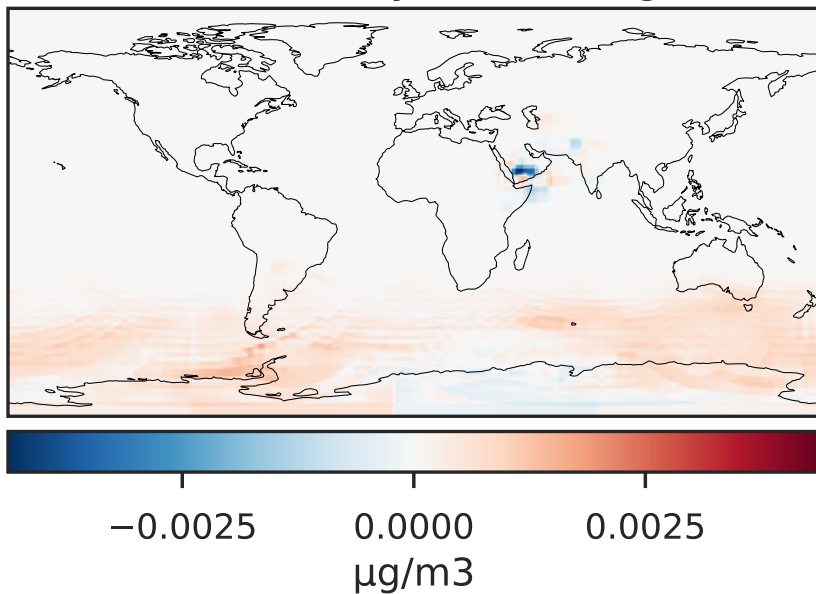
GCC_14.2.0 (Ref)
4.0x5.0



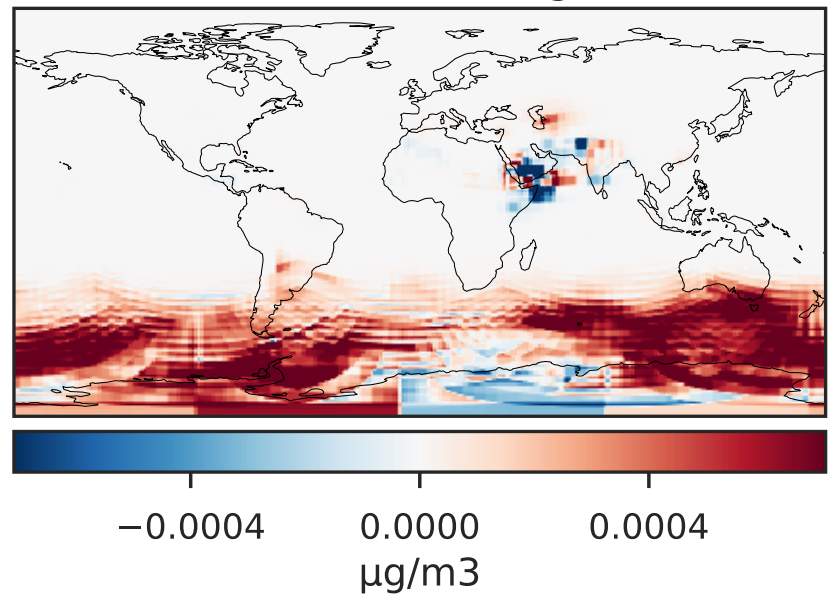
GCHP_14.2.0 (Dev)
c24



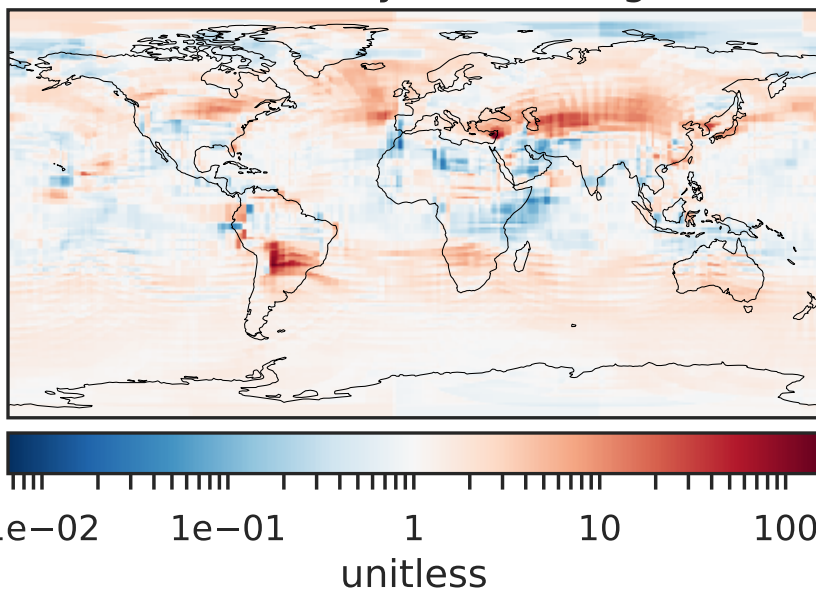
Difference (1x1.25)
Dev - Ref, Dynamic Range



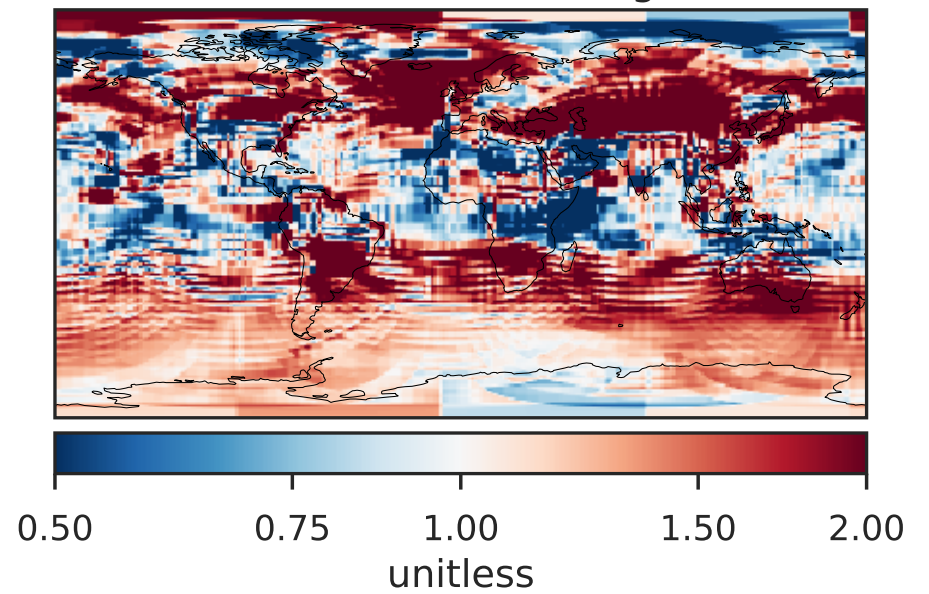
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

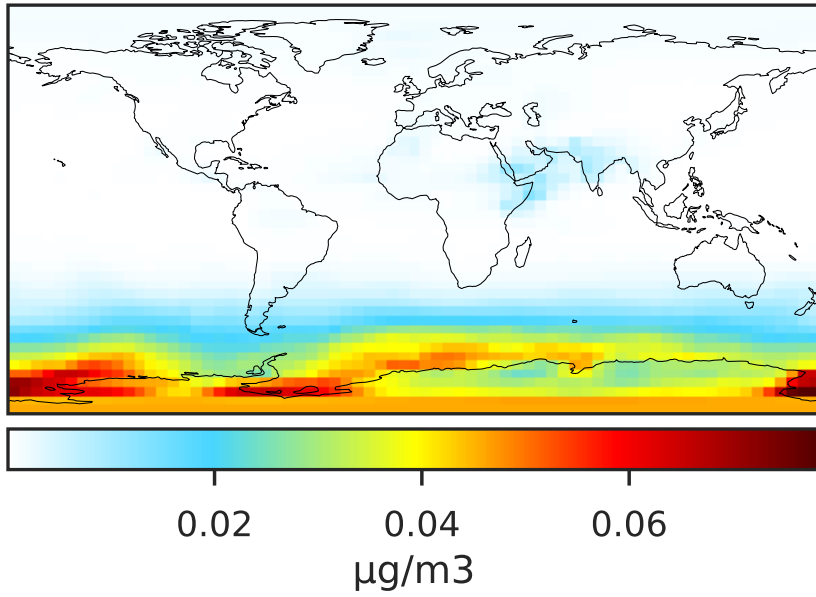


Ratio (1x1.25)
Dev/Ref, Fixed Range

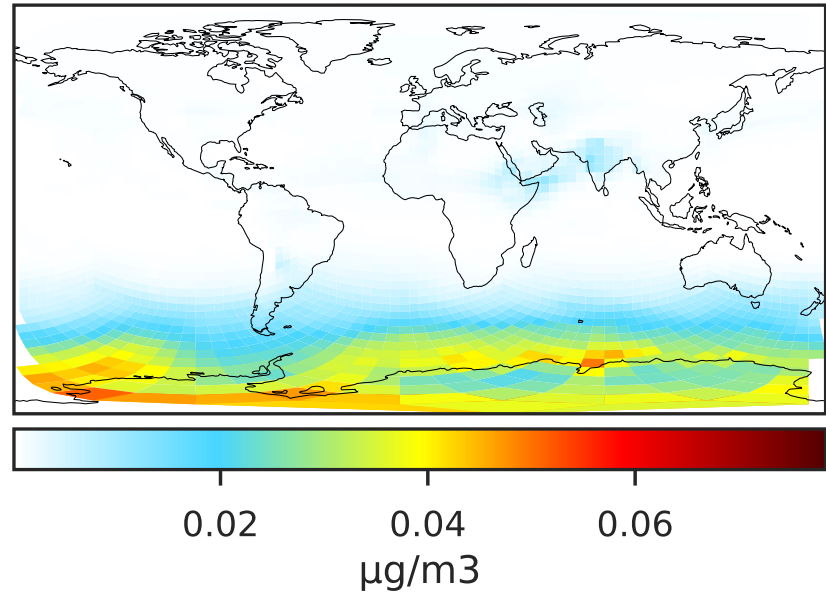


SpeciesConcVV_SALA (Jul2019)

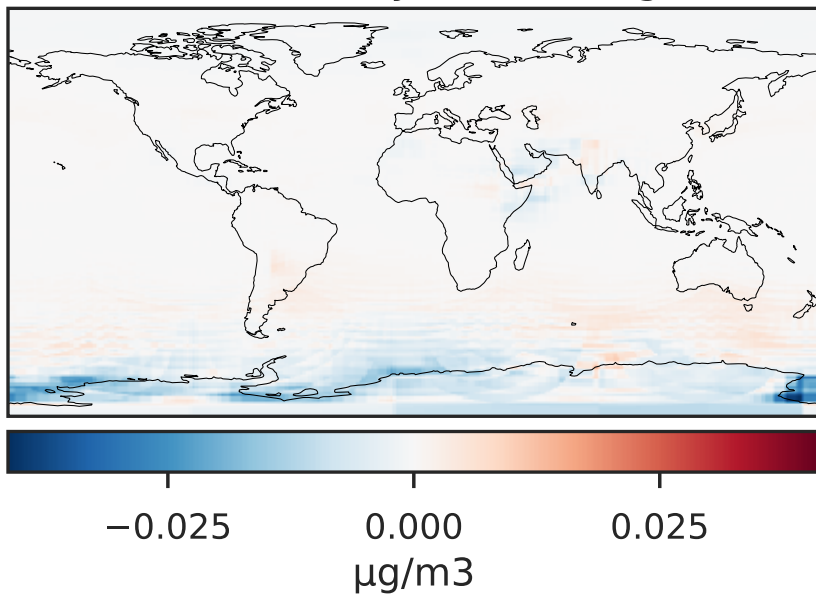
GCC_14.2.0 (Ref)
4.0x5.0



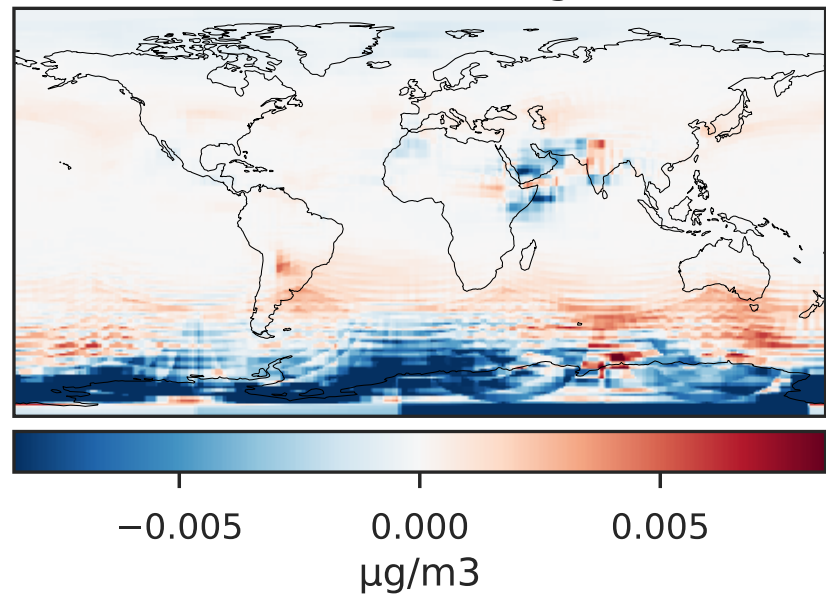
GCHP_14.2.0 (Dev)
c24



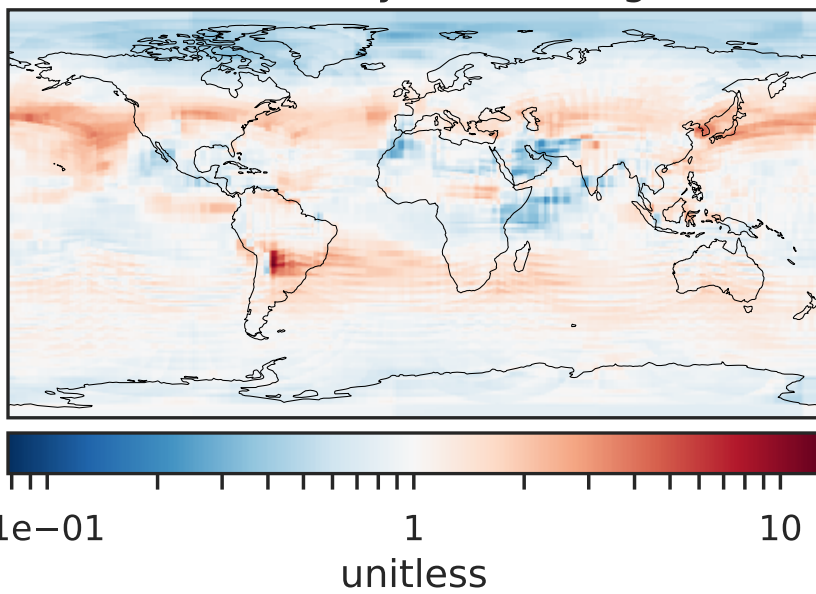
Difference (1x1.25)
Dev - Ref, Dynamic Range



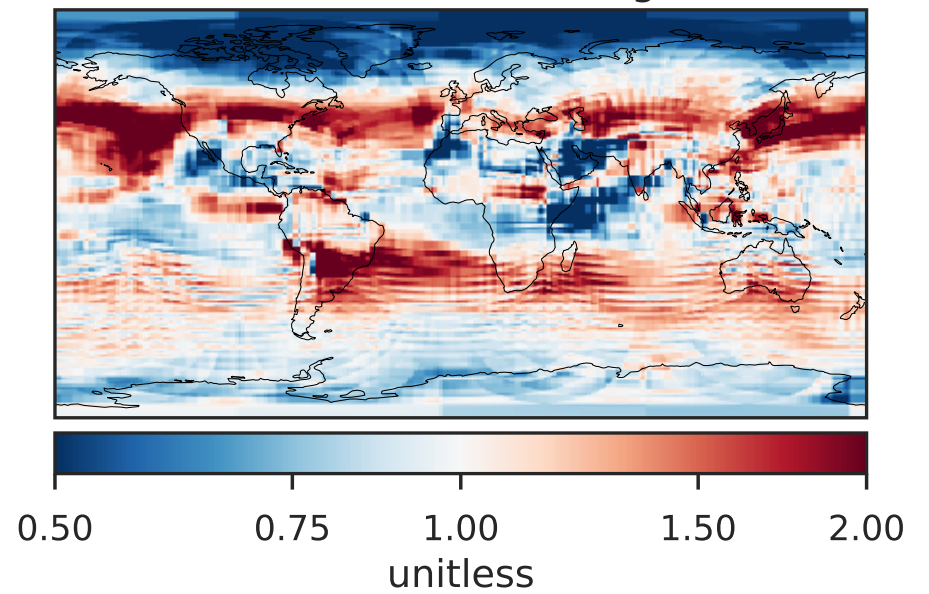
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

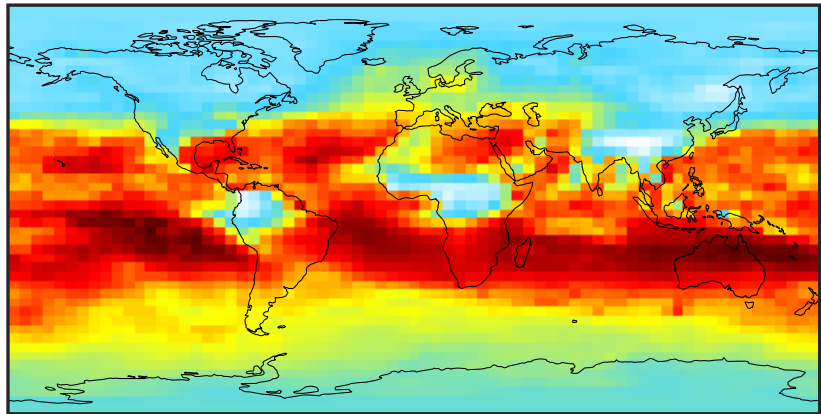


Ratio (1x1.25)
Dev/Ref, Fixed Range



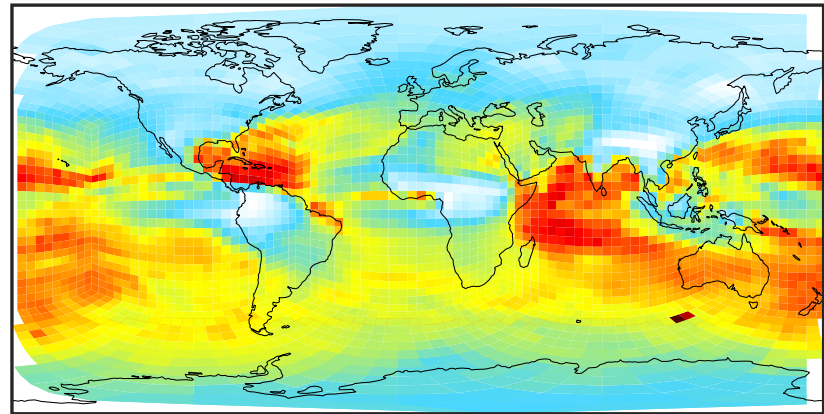
SpeciesConcVV_SALAAAL (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



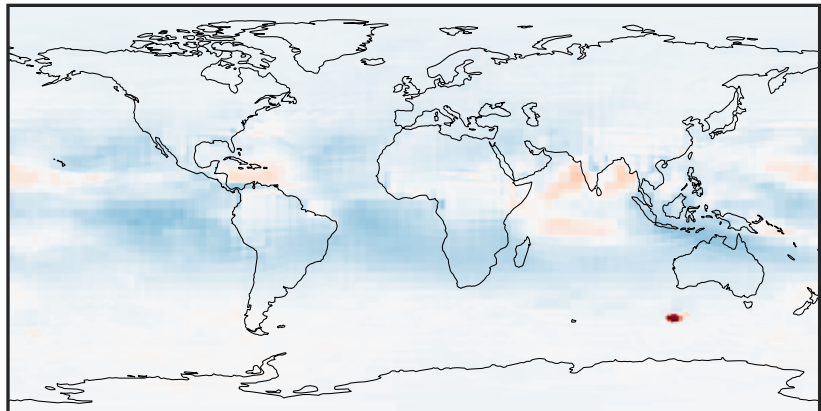
0.5 1.0 1.5 2.0
 $\mu\text{g}/\text{m}^3$ $1\text{e}-8$

GCHP_14.2.0 (Dev)
c24



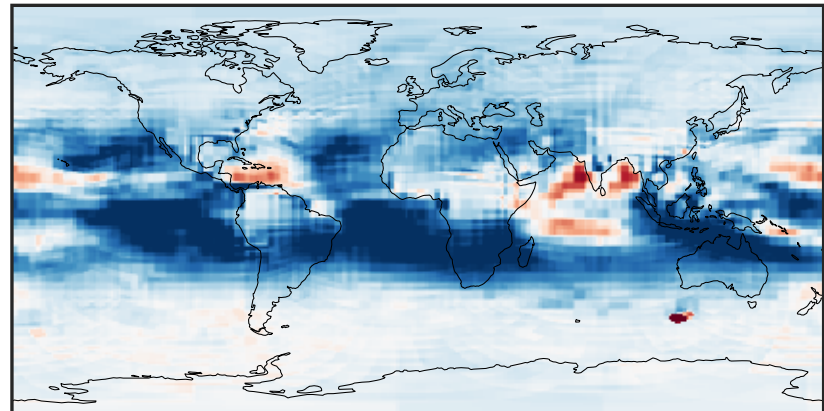
0.5 1.0 1.5 2.0
 $\mu\text{g}/\text{m}^3$ $1\text{e}-8$

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



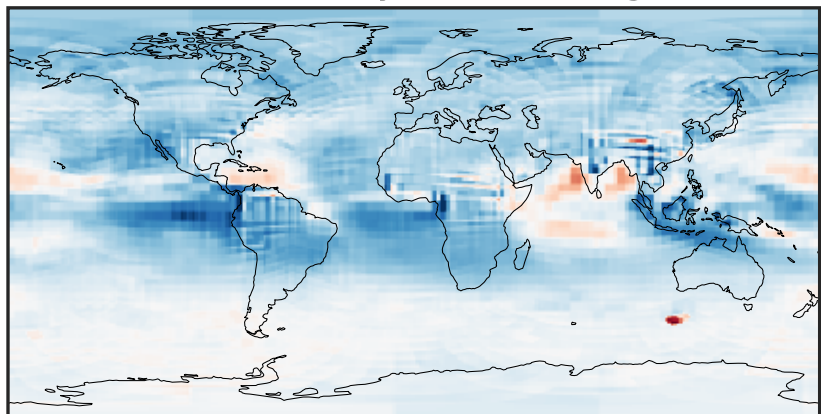
-1.5 0.0 1.5
 $\mu\text{g}/\text{m}^3$ $1\text{e}-8$

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



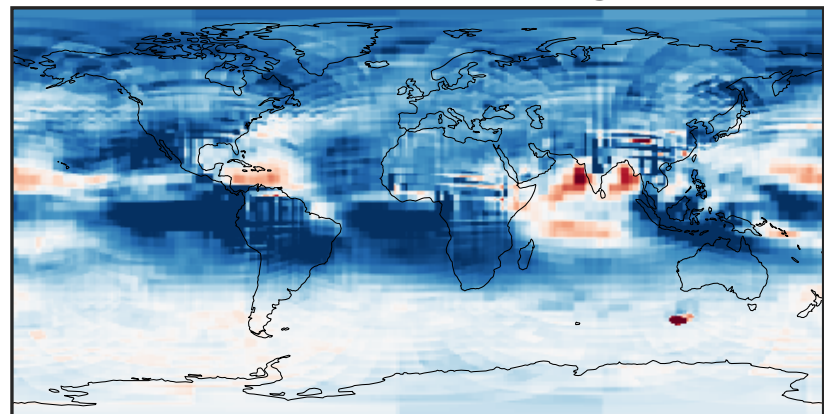
-4 0 4
 $\mu\text{g}/\text{m}^3$ $1\text{e}-9$

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



0.264 0.632 1.000 2.393 3.786
unitless

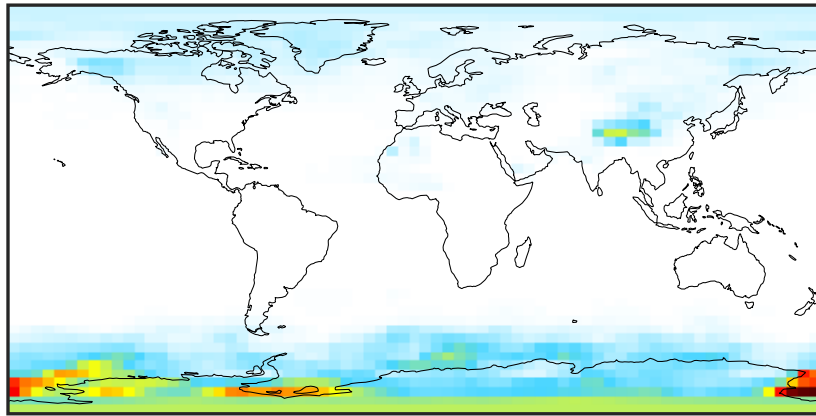
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

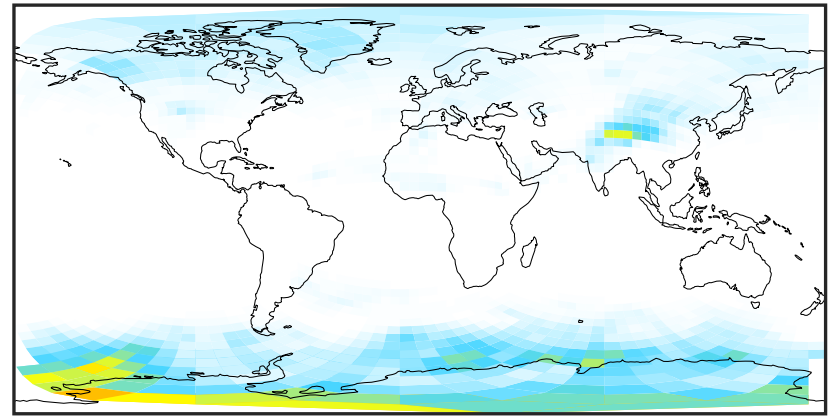
SpeciesConcVV_SALACL (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



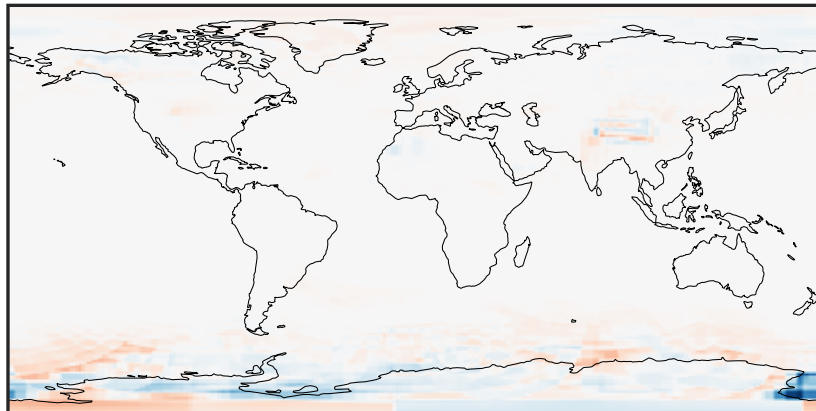
0.000 0.005 0.010 0.015
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



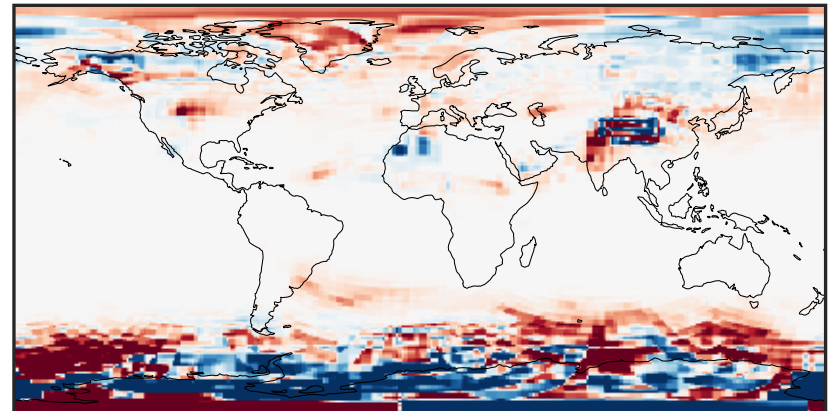
0.000 0.005 0.010 0.015
 $\mu\text{g}/\text{m}^3$

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



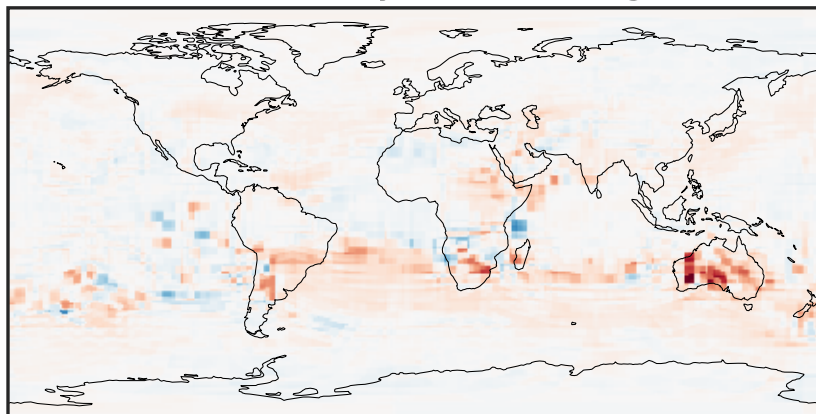
-0.006 0.000 0.006
 $\mu\text{g}/\text{m}^3$

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



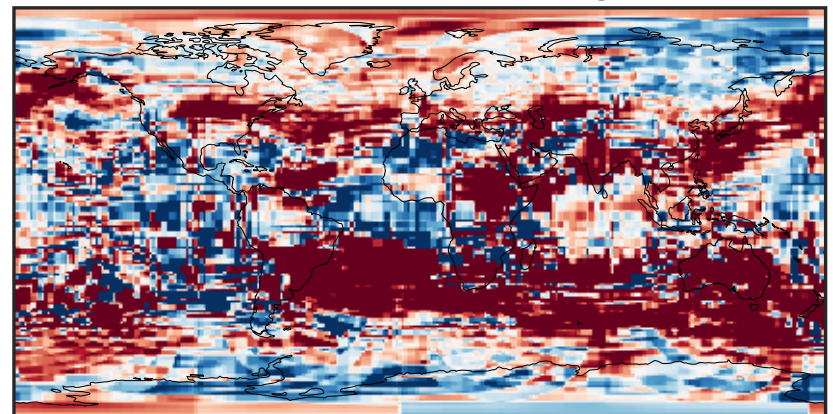
-0.0005 0.0000 0.0005
 $\mu\text{g}/\text{m}^3$

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



1e-05 1e-03 1e-01 10 1000 1e+05
unitless

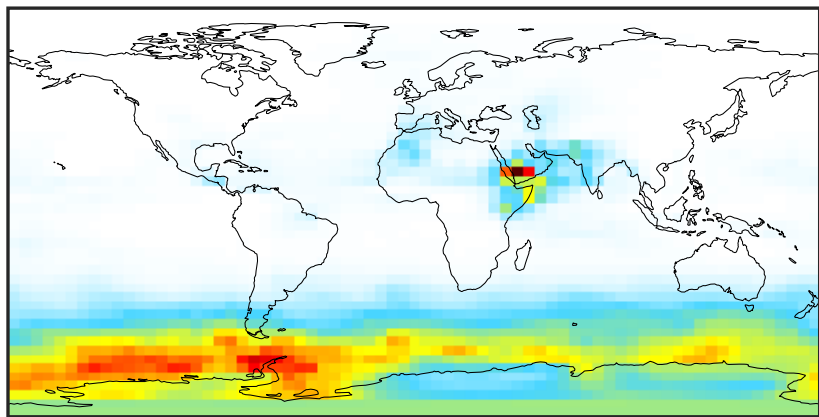
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

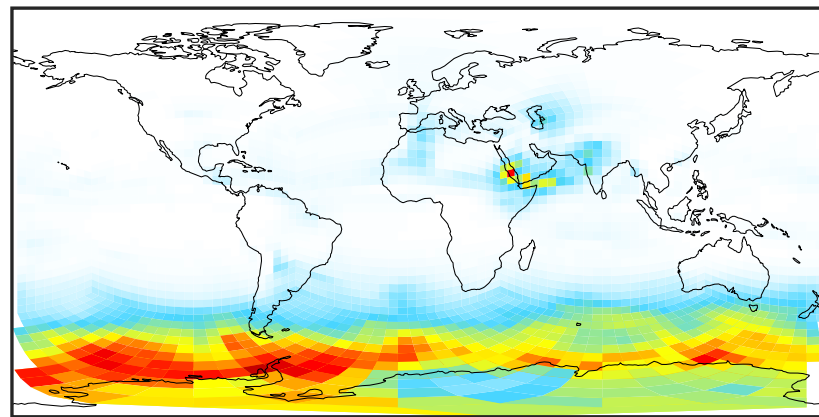
SpeciesConcVV_SALC (Jul2019)

GCC_14.2.0 (Ref)
4.0x5.0



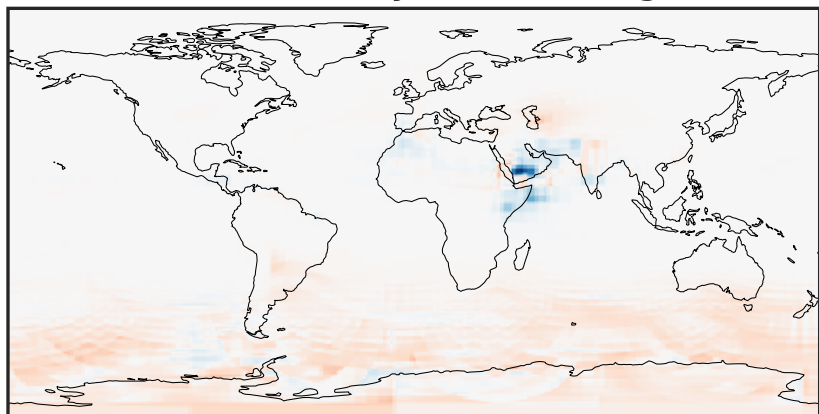
0.0001 0.0300 0.0600 0.0900 0.1201
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



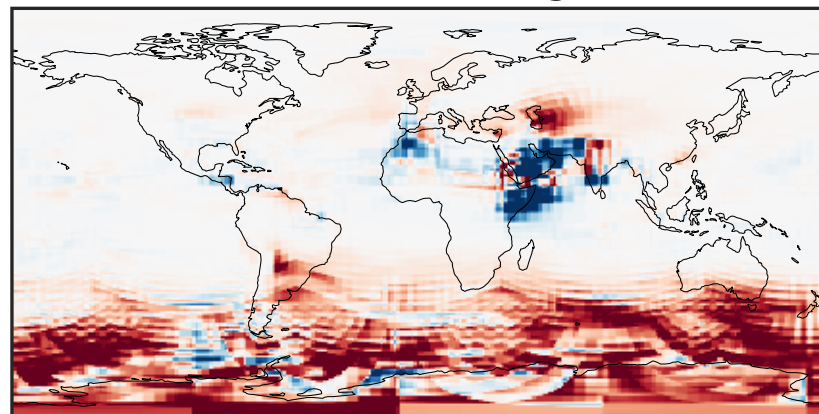
0.0001 0.0300 0.0600 0.0900 0.1201
 $\mu\text{g}/\text{m}^3$

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



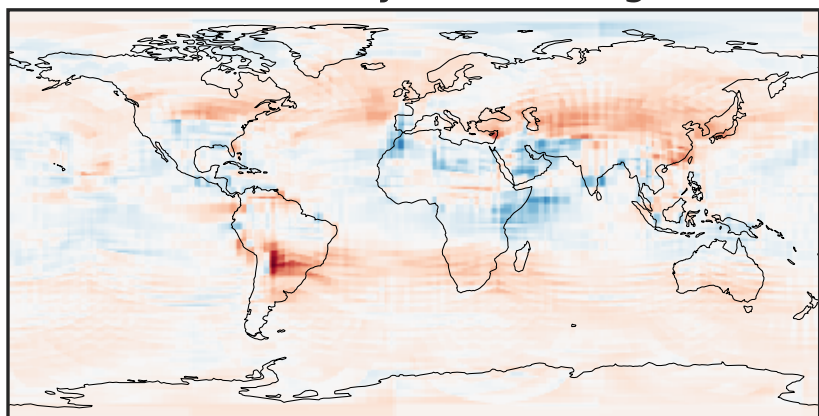
-0.0982 -0.0491 0.0000 0.0491 0.0982
 $\mu\text{g}/\text{m}^3$

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



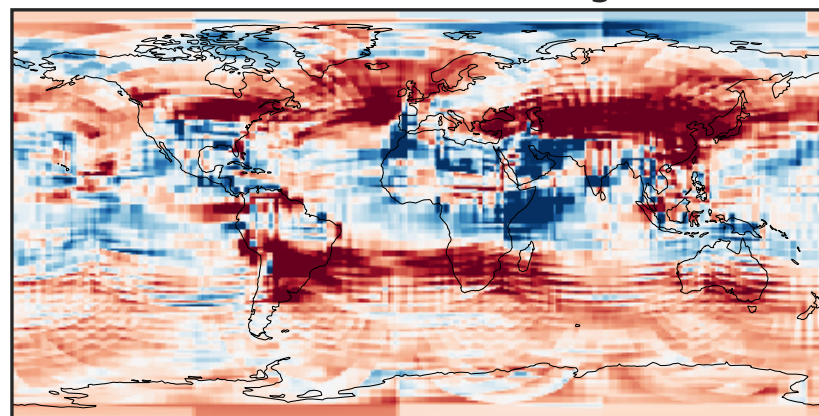
-0.008 0.000 0.008
 $\mu\text{g}/\text{m}^3$

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



1e-01 1 10
unitless

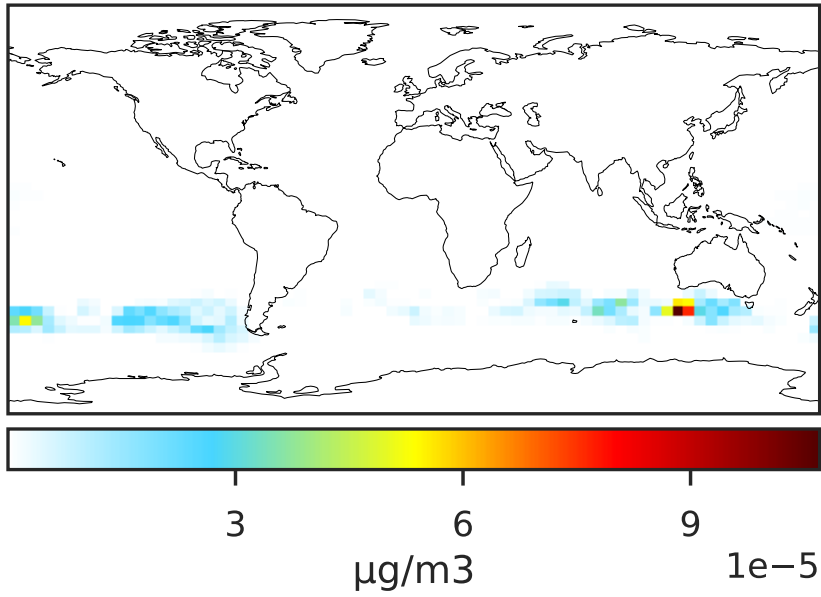
Ratio (1x1.25)
Dev/Ref, Fixed Range



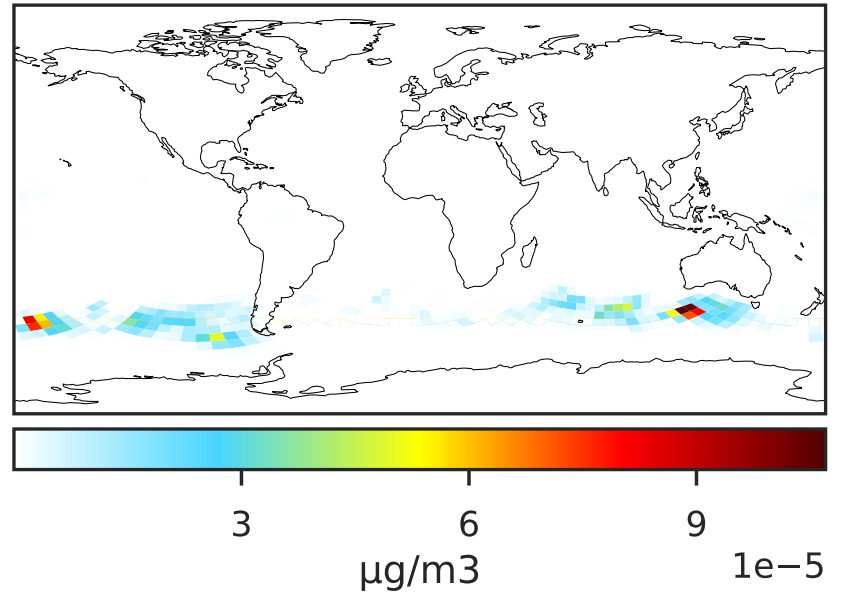
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_SALCAL (Jul2019)

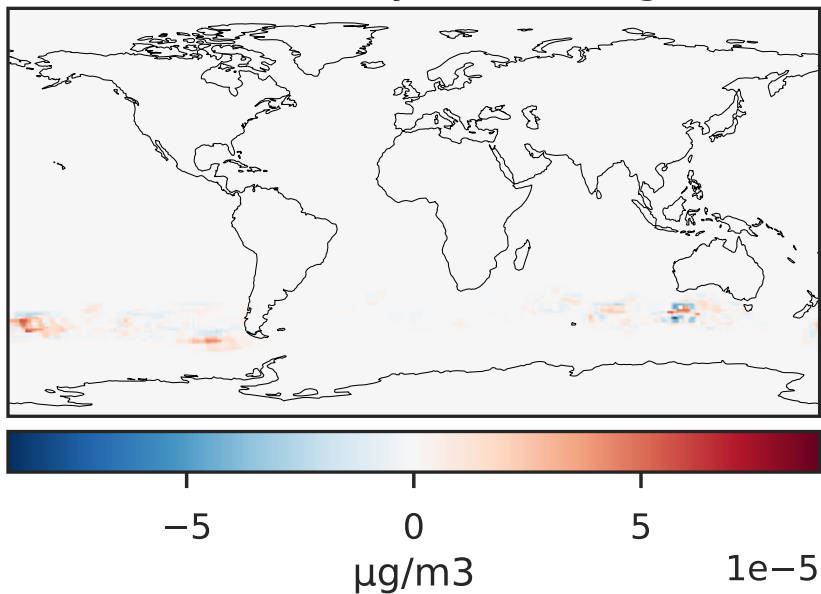
GCC_14.2.0 (Ref)
4.0x5.0



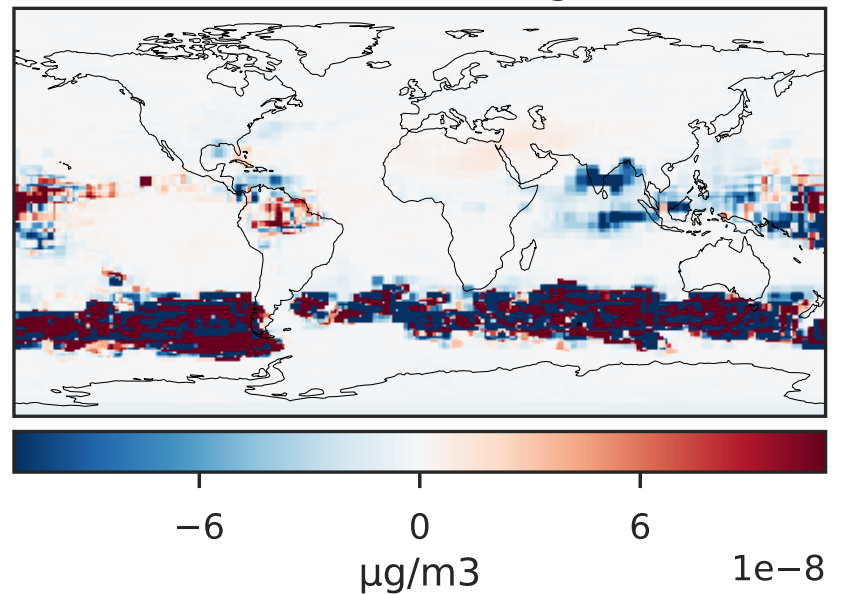
GCHP_14.2.0 (Dev)
c24



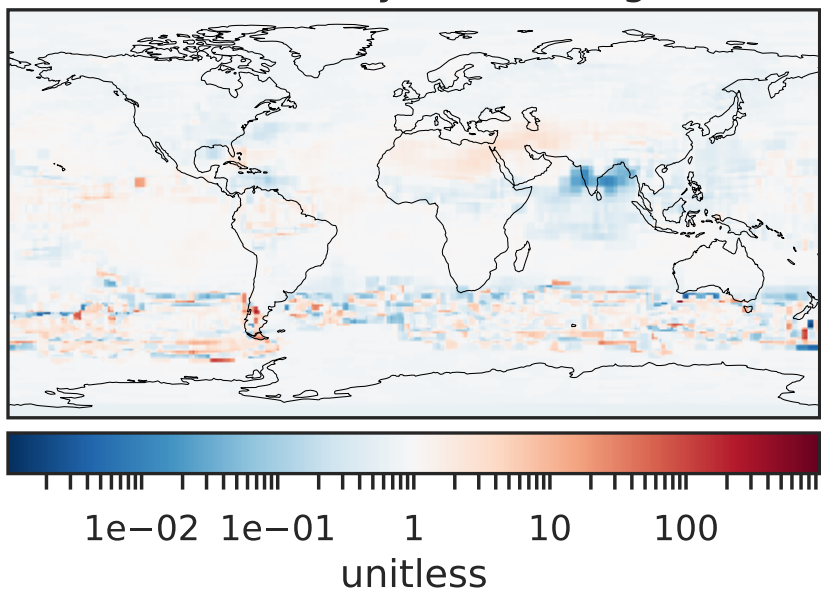
Difference (1x1.25)
Dev - Ref, Dynamic Range



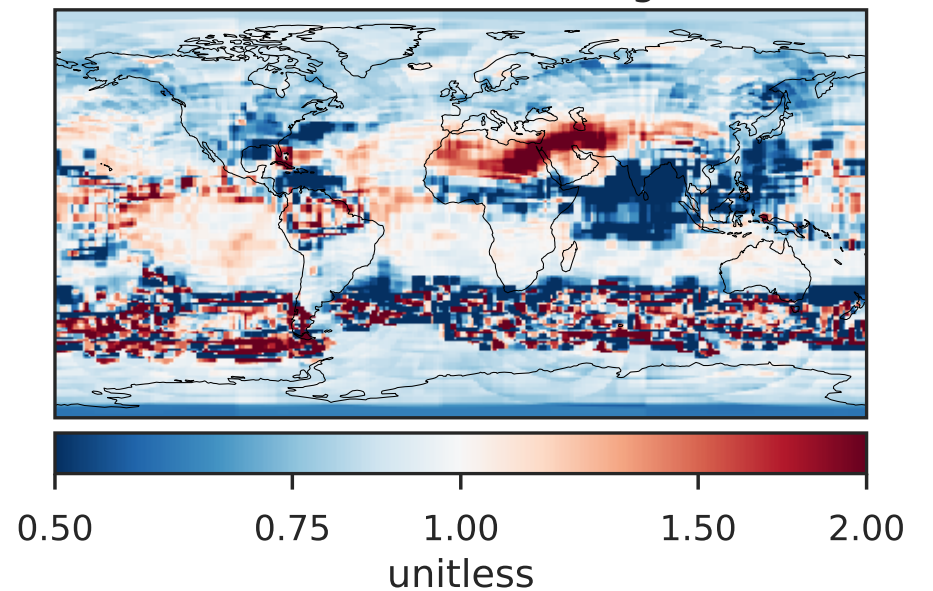
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

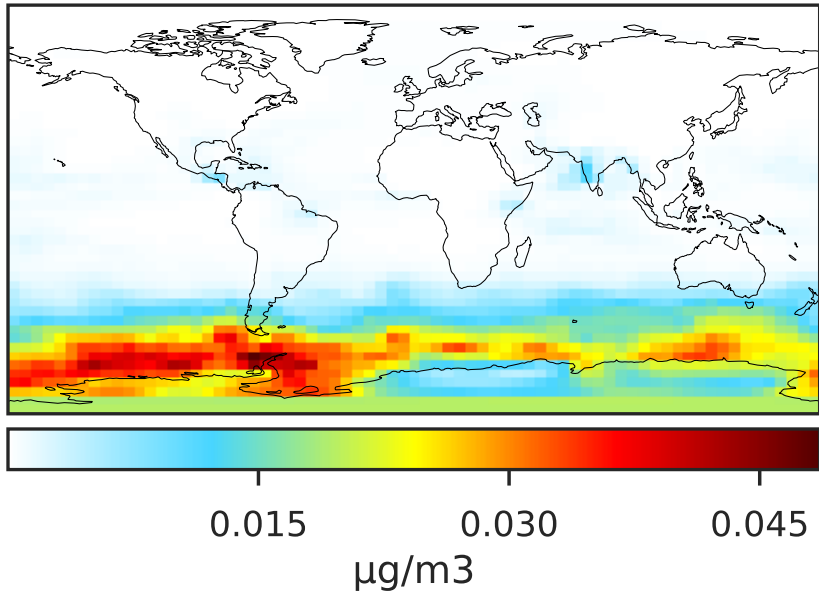


Ratio (1x1.25)
Dev/Ref, Fixed Range

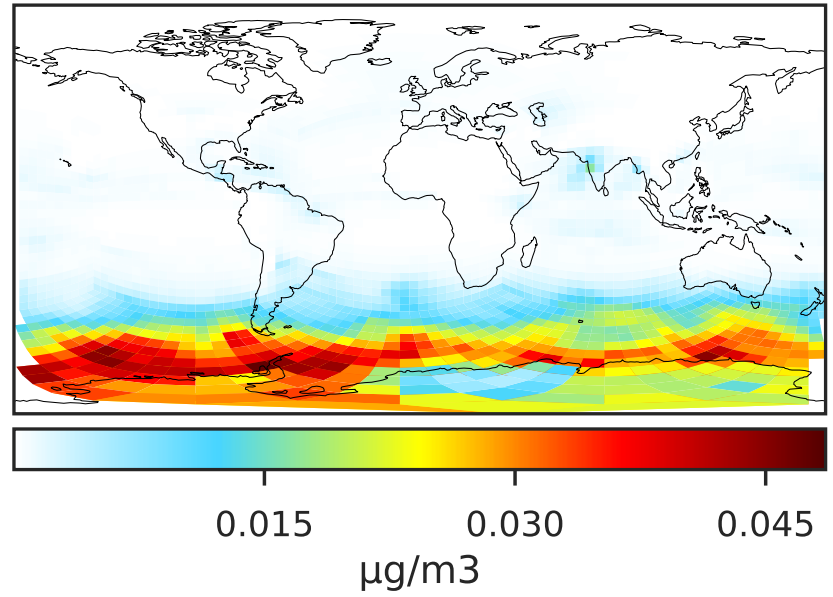


SpeciesConcVV_SALCCL (Jul2019)

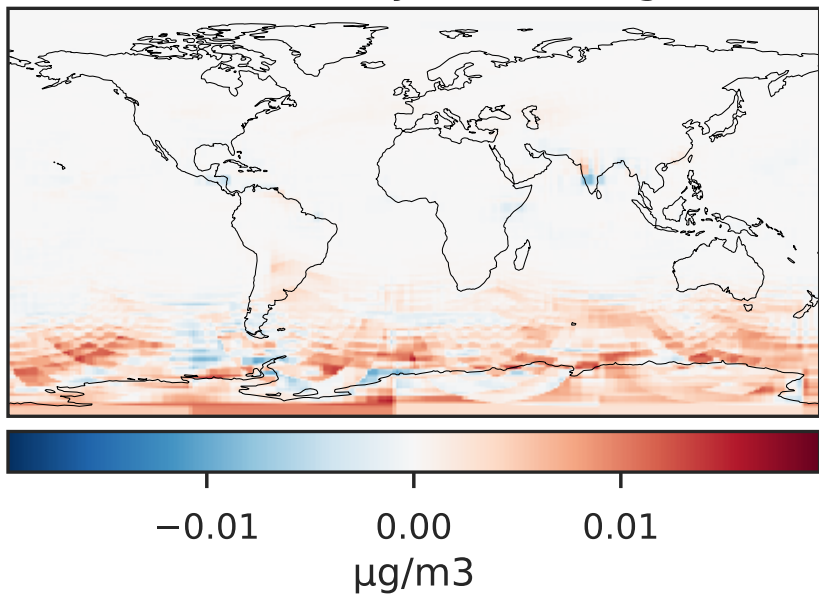
GCC_14.2.0 (Ref)
4.0x5.0



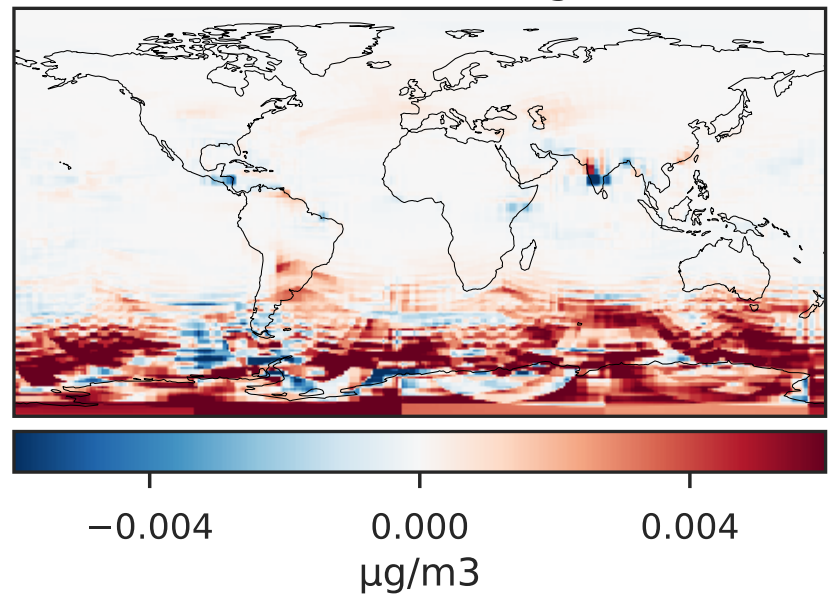
GCHP_14.2.0 (Dev)
c24



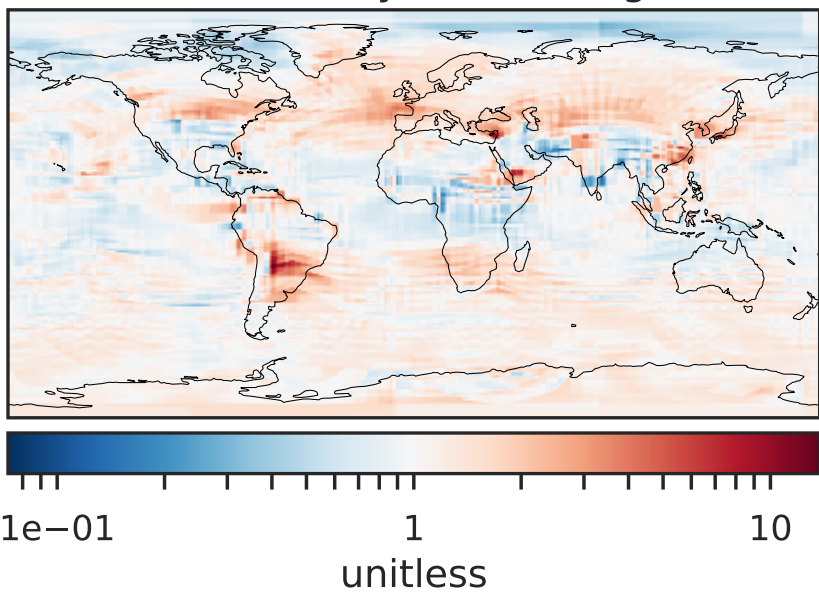
Difference (1x1.25)
Dev - Ref, Dynamic Range



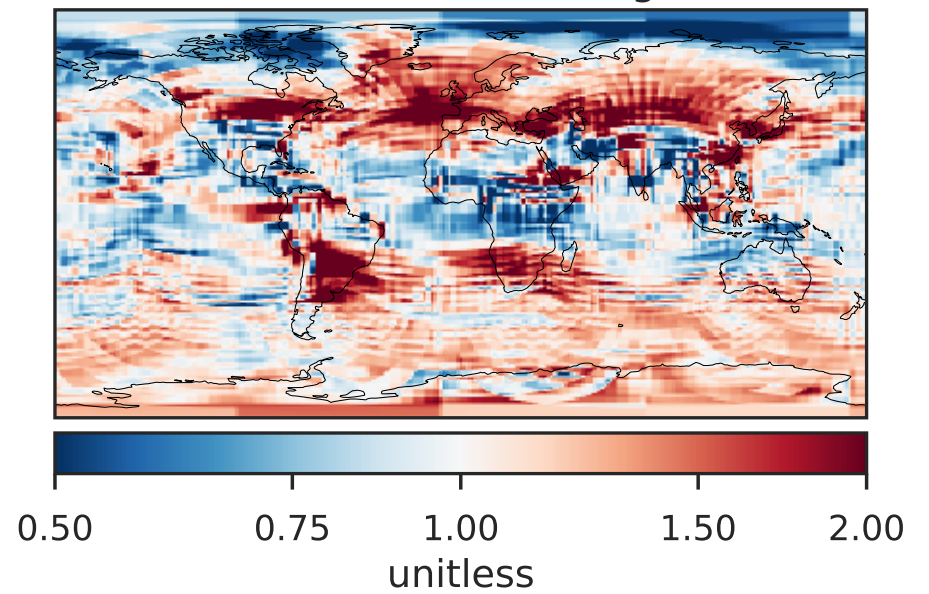
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

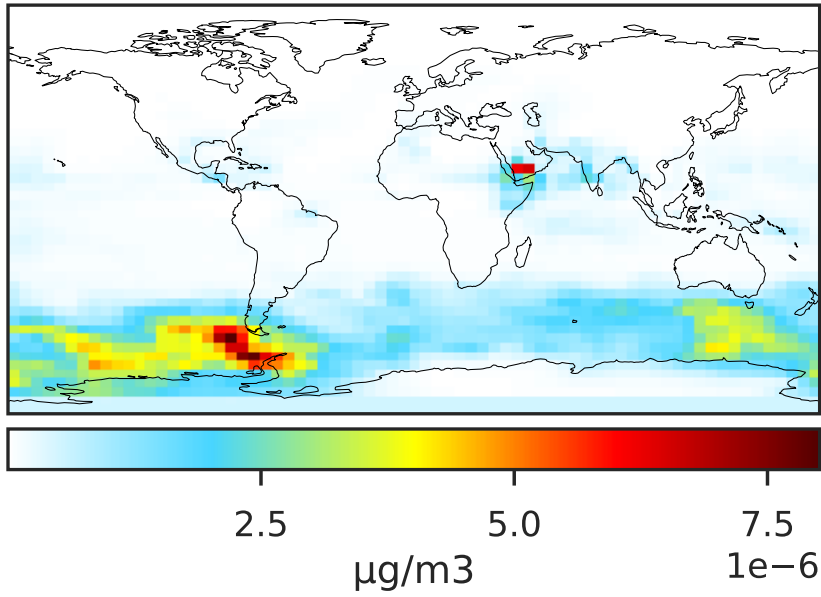


Ratio (1x1.25)
Dev/Ref, Fixed Range

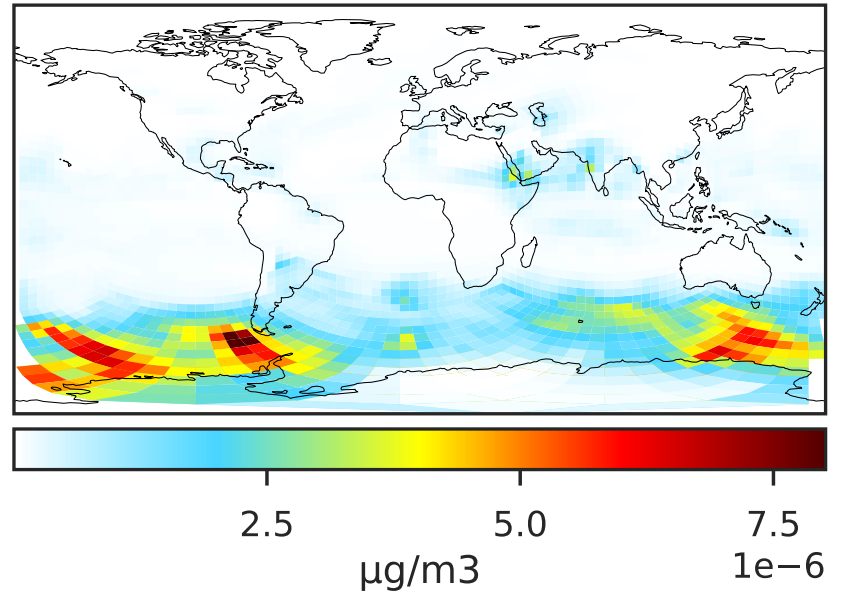


SpeciesConcVV_SO4s (Jul2019)

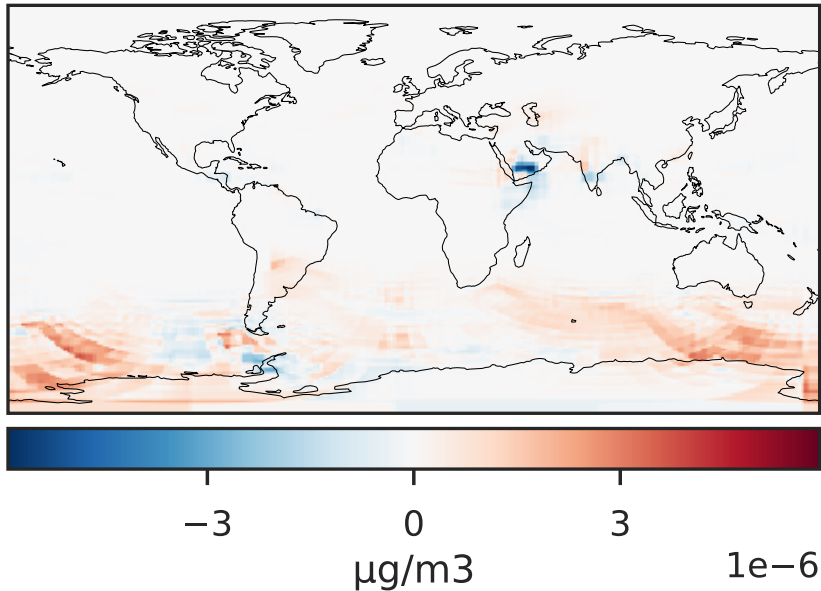
GCC_14.2.0 (Ref)
4.0x5.0



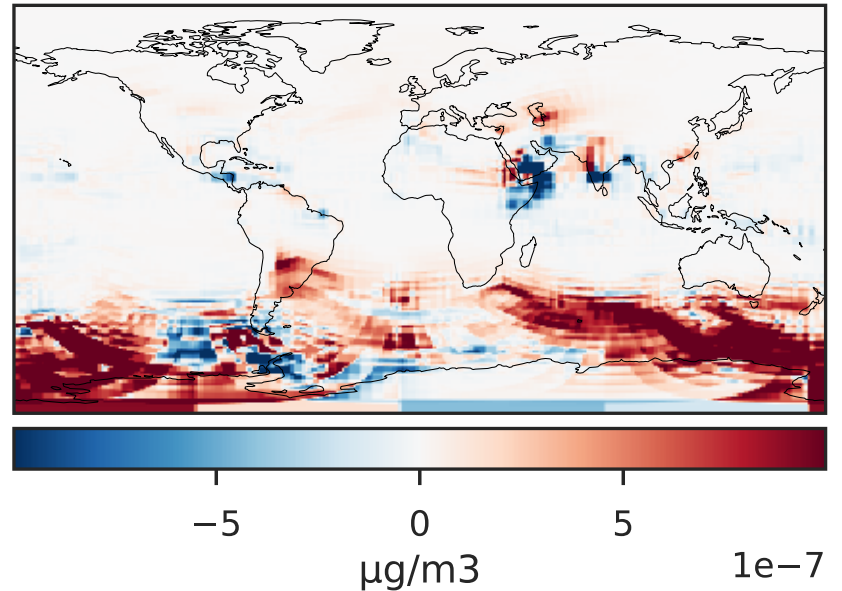
GCHP_14.2.0 (Dev)
c24



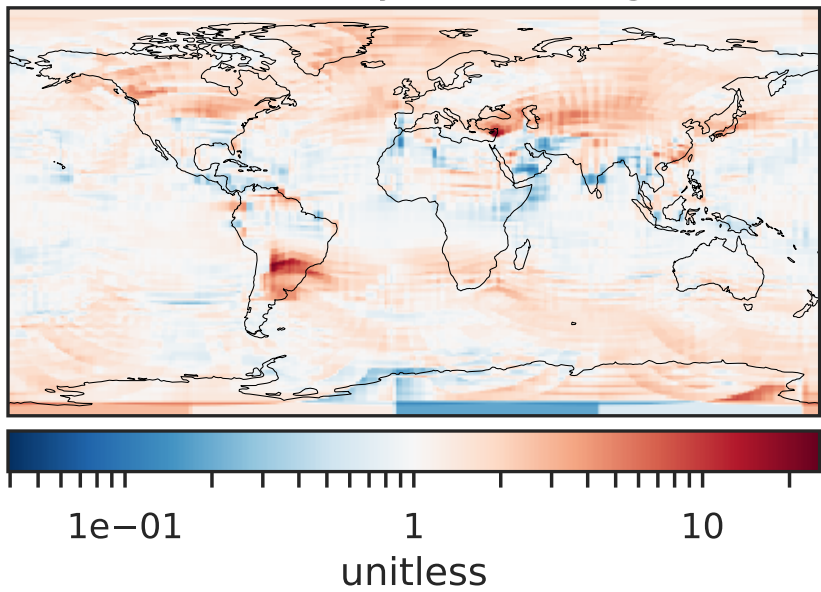
Difference (1x1.25)
Dev - Ref, Dynamic Range



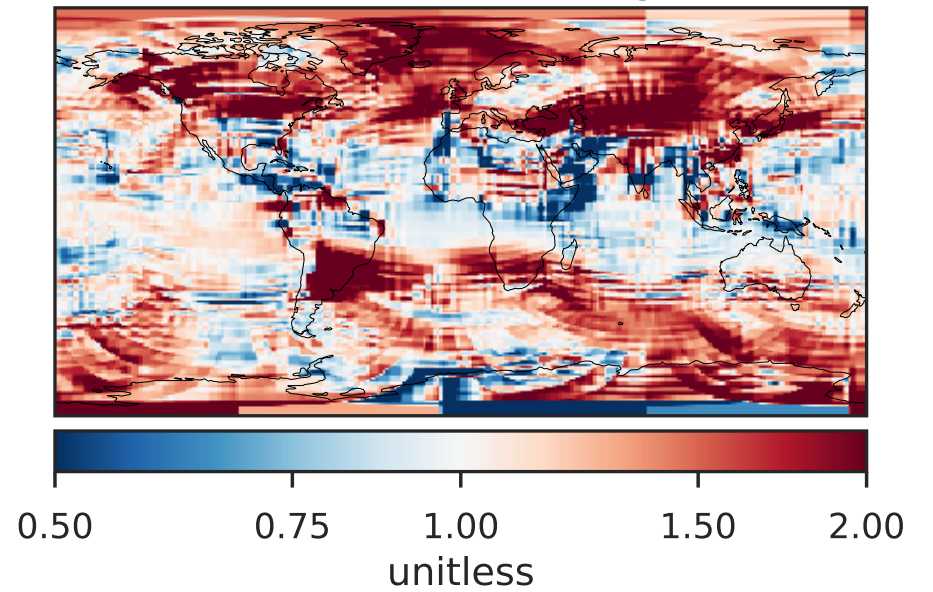
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

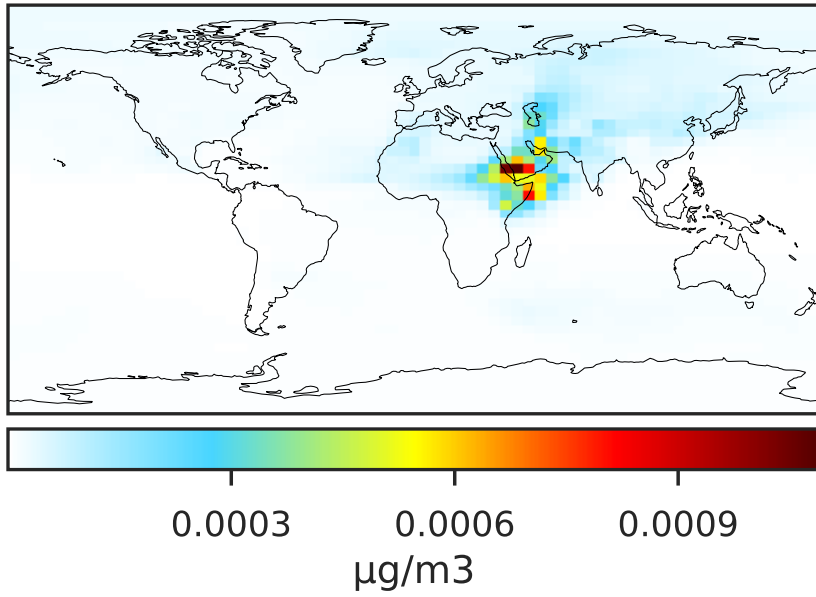


Ratio (1x1.25)
Dev/Ref, Fixed Range

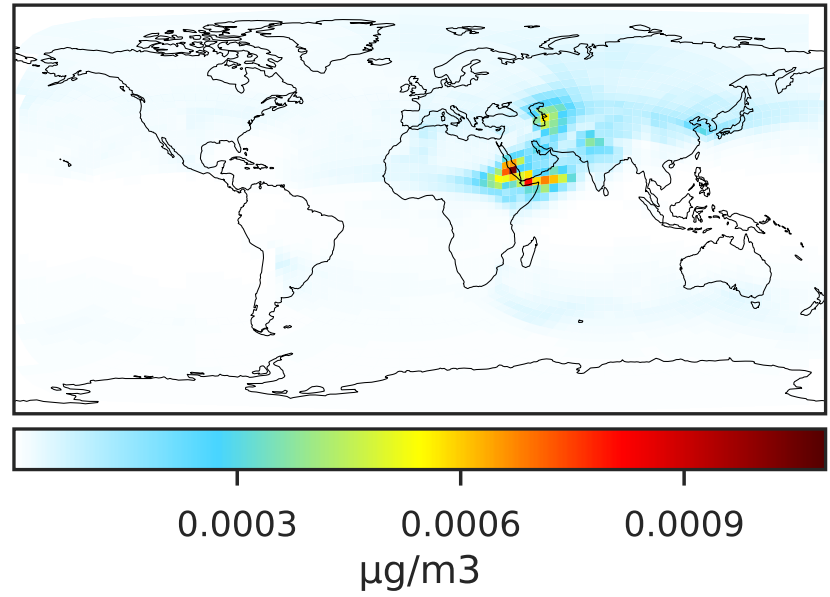


SpeciesConcVV_pFe (Jul2019)

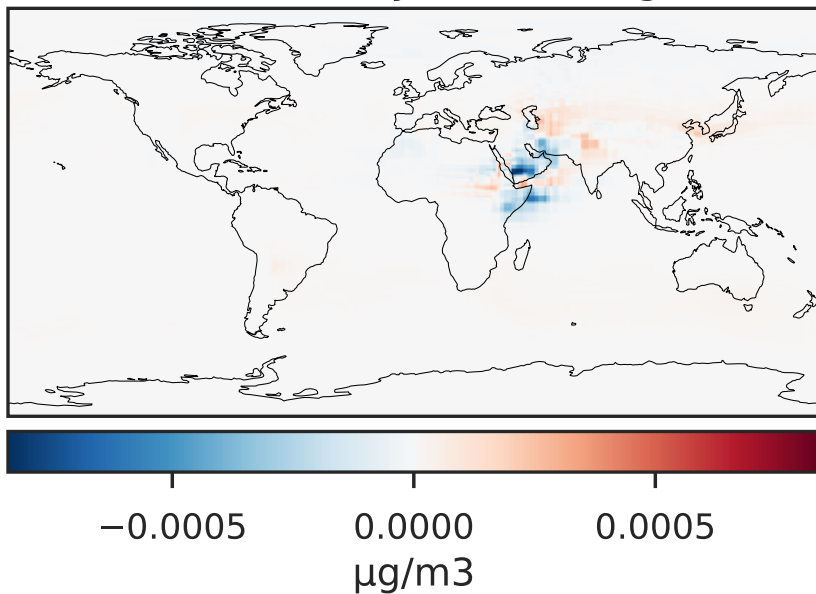
GCC_14.2.0 (Ref)
4.0x5.0



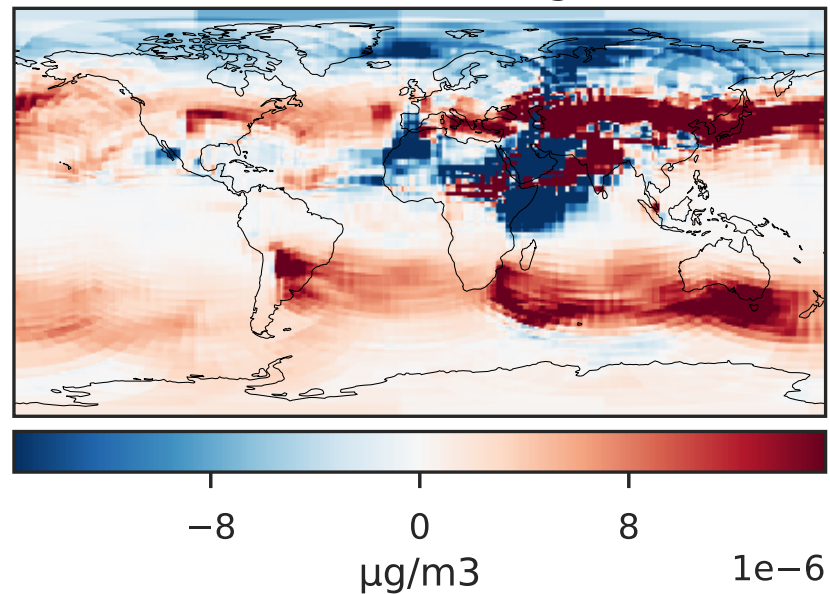
GCHP_14.2.0 (Dev)
c24



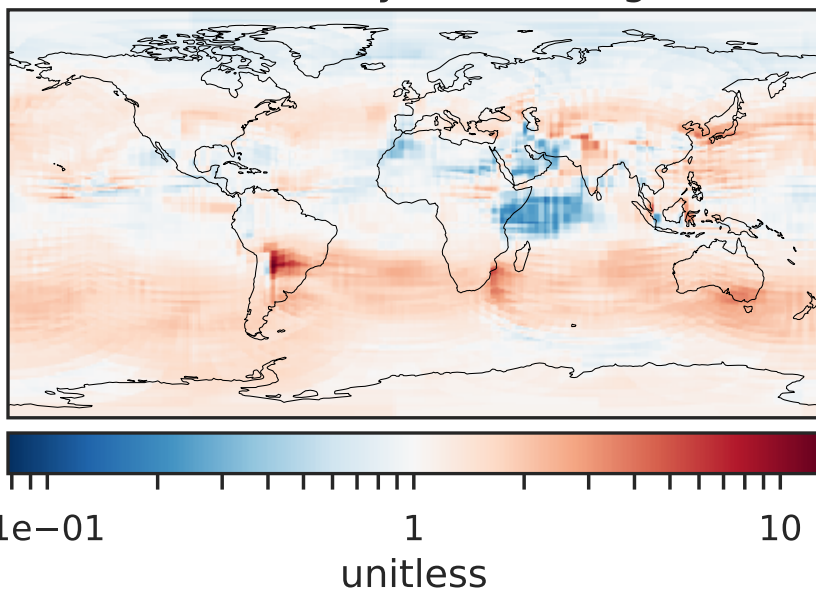
Difference (1x1.25)
Dev - Ref, Dynamic Range



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



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



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

