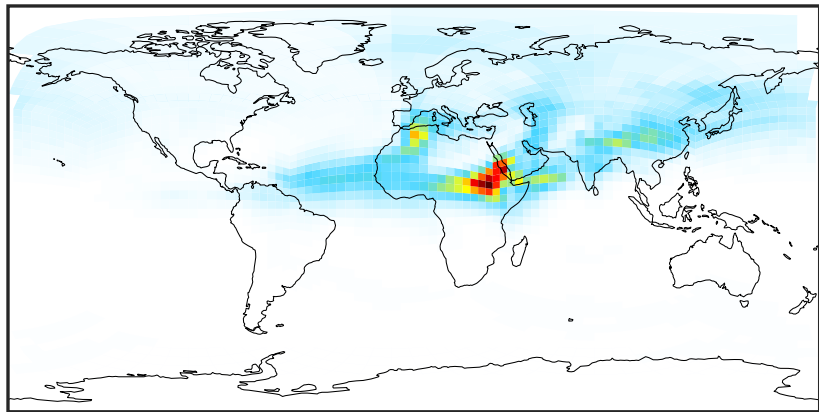


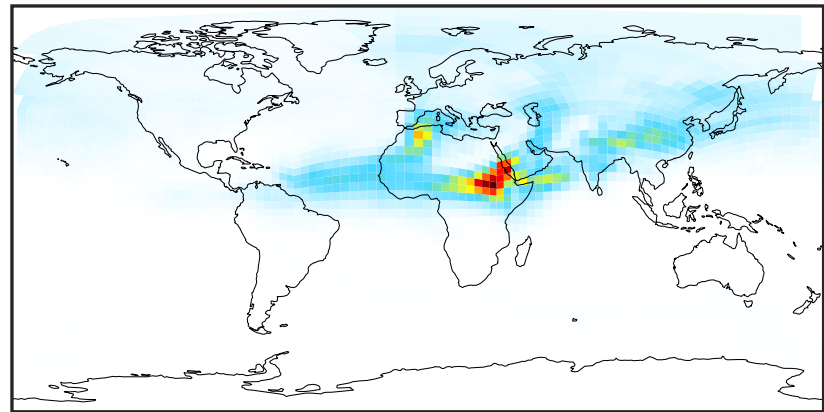
SpeciesConcVV_DST1 (Jul2019)

GCHP_14.0.0 (Ref)
c24



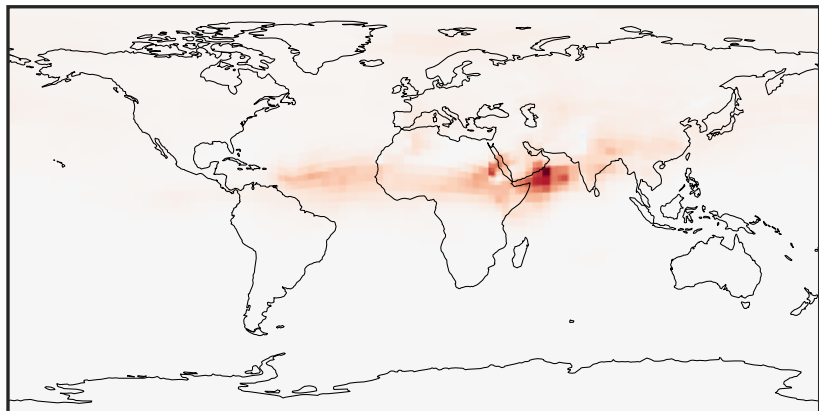
0.001 1.200 2.400 3.601 4.802
µg/m3

GCHP_14.2.0 (Dev)
c24



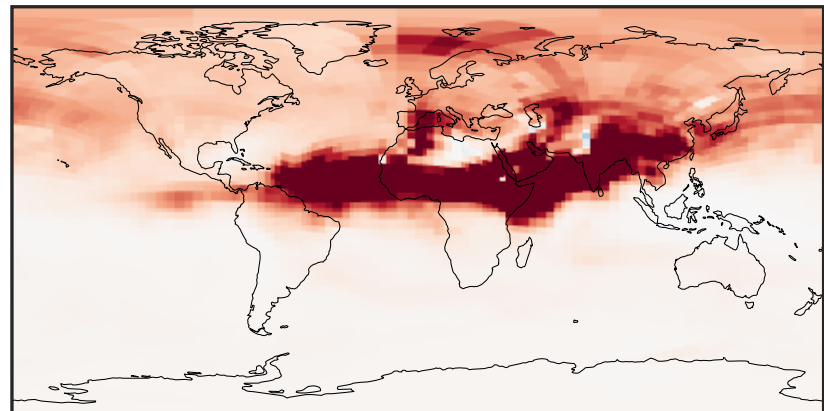
0.001 1.200 2.400 3.601 4.802
µg/m3

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



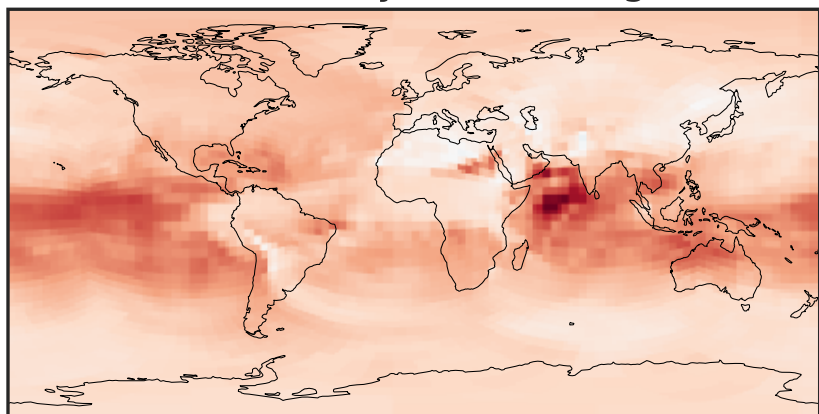
-0.02 0.00 0.02
µg/m3

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



-0.002 0.000 0.002
µg/m3

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



0.96978 0.98489 1.00000 1.01558 1.03116
unitless

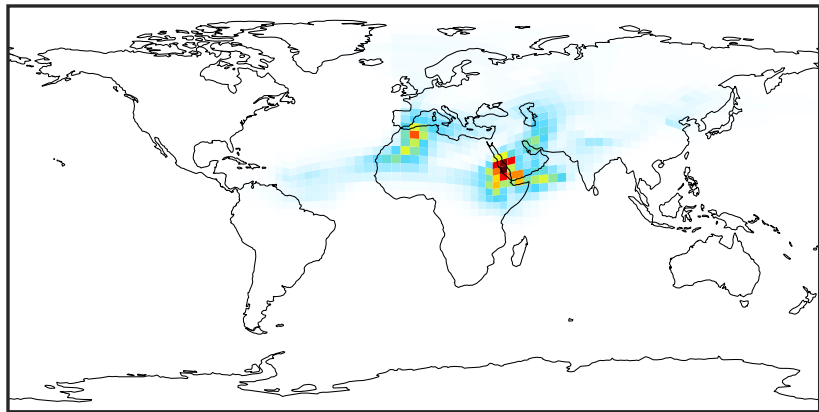
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

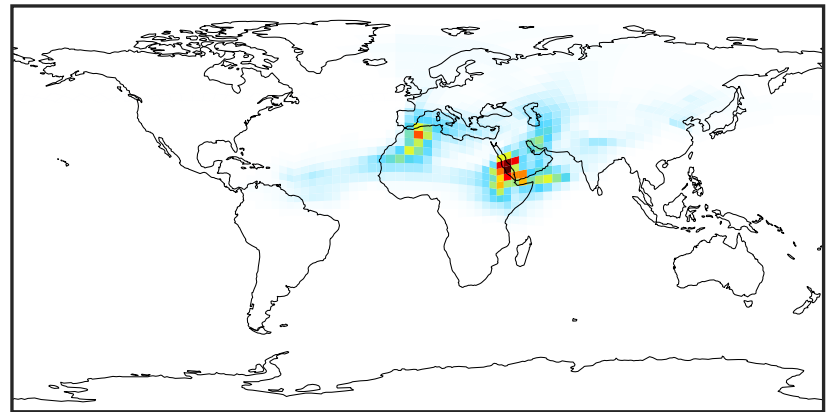
SpeciesConcVV_DST2 (Jul2019)

GCHP_14.0.0 (Ref)
c24



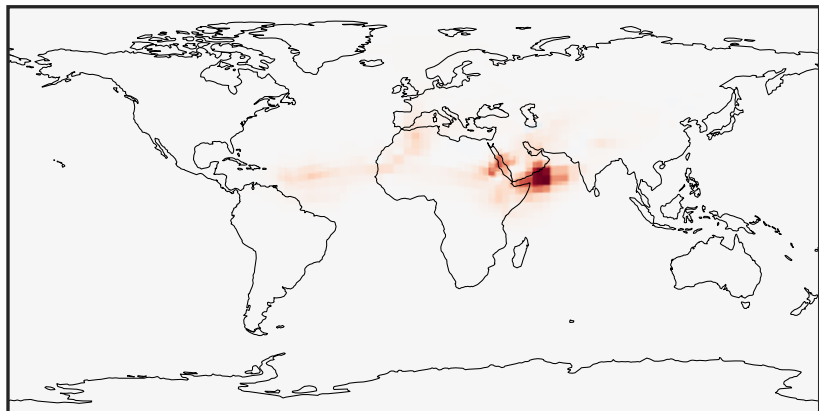
0.000 1.164 2.327 3.491 4.655
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



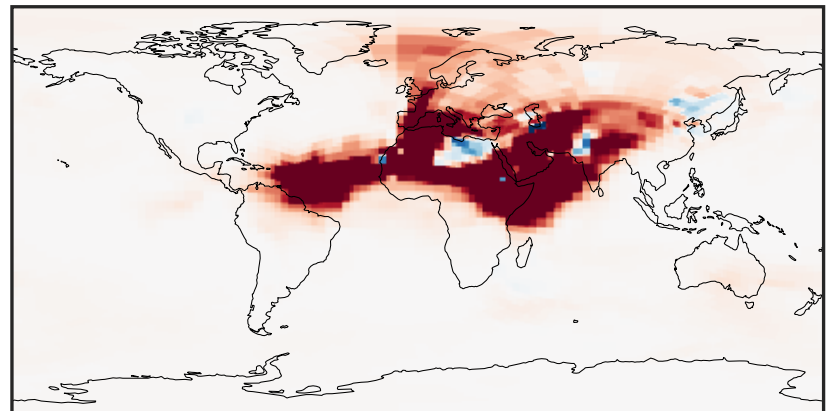
0.000 1.164 2.327 3.491 4.655
 $\mu\text{g}/\text{m}^3$

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



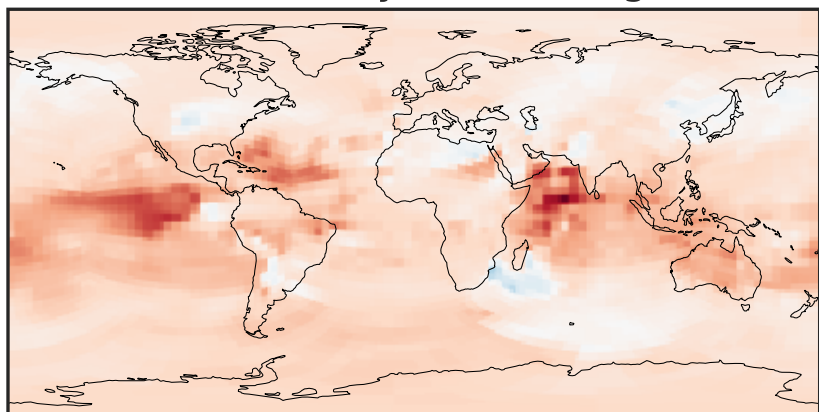
-0.02 0.00 0.02
 $\mu\text{g}/\text{m}^3$

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



0.96559 0.98279 1.00000 1.01782 1.03564
unitless

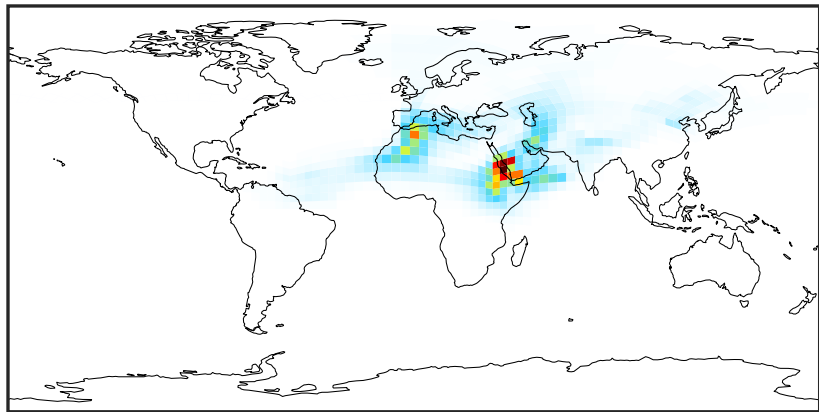
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

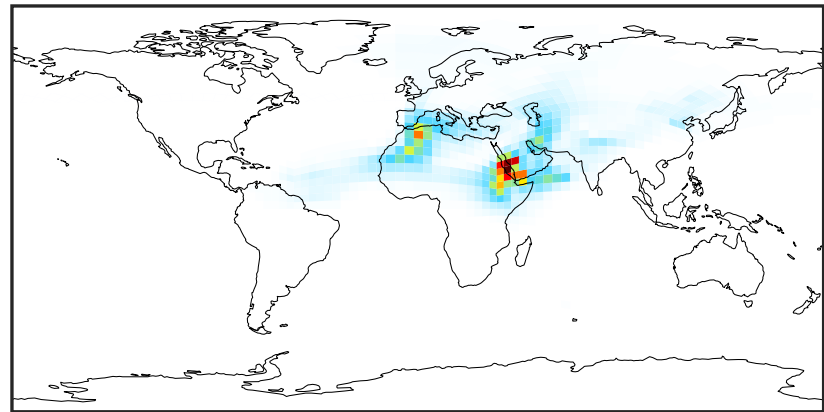
SpeciesConcVV_DST3 (Jul2019)

GCHP_14.0.0 (Ref)
c24



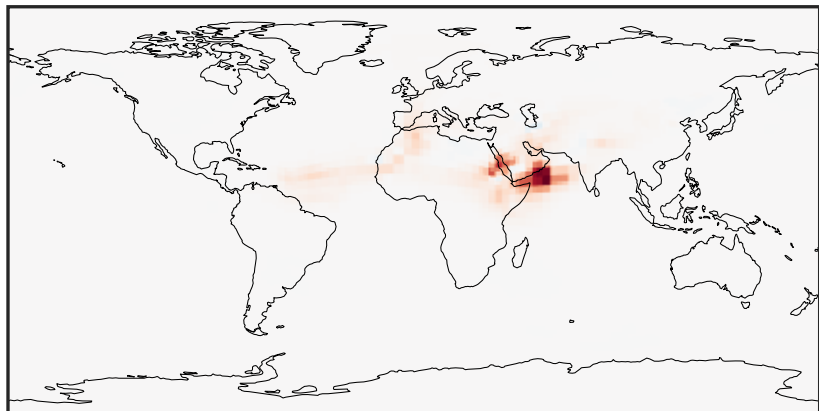
0.000 1.516 3.031 4.547 6.062
µg/m3

GCHP_14.2.0 (Dev)
c24



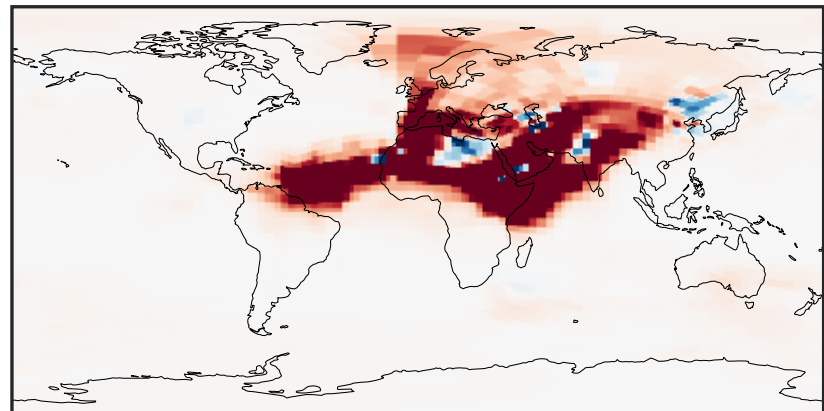
0.000 1.516 3.031 4.547 6.062
µg/m3

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



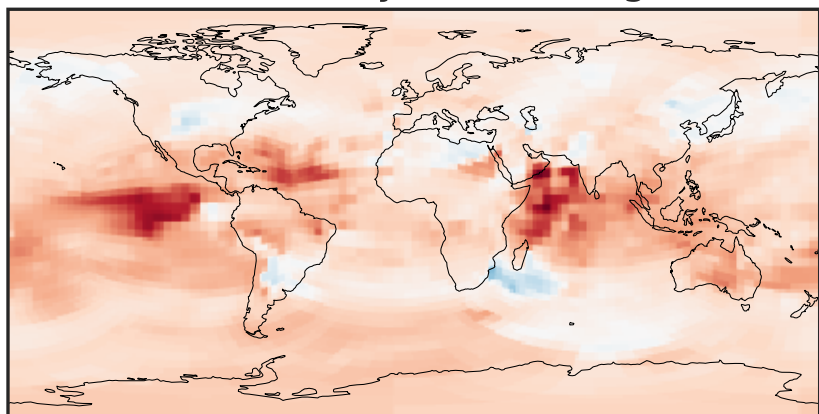
-0.02 0.00 0.02
µg/m3

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



-0.0004 0.0000 0.0004
µg/m3

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



0.97237 0.98618 1.00000 1.01421 1.02842
unitless

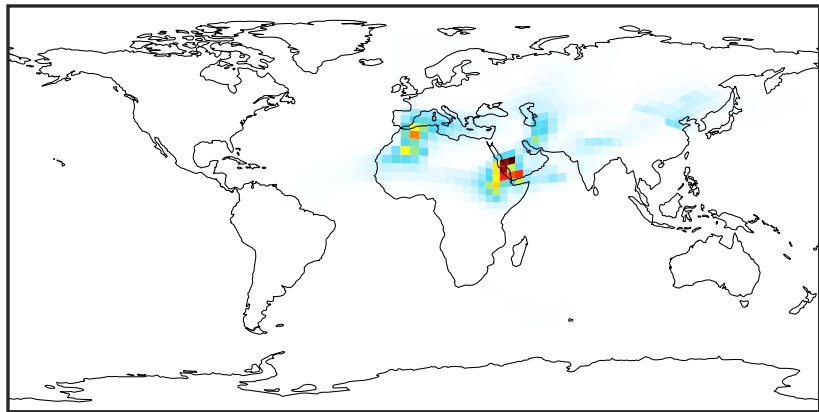
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

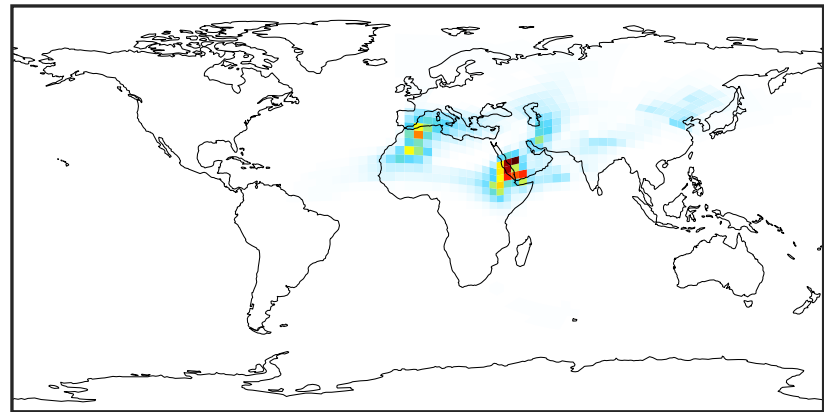
SpeciesConcVV_DST4 (Jul2019)

GCHP_14.0.0 (Ref)
c24



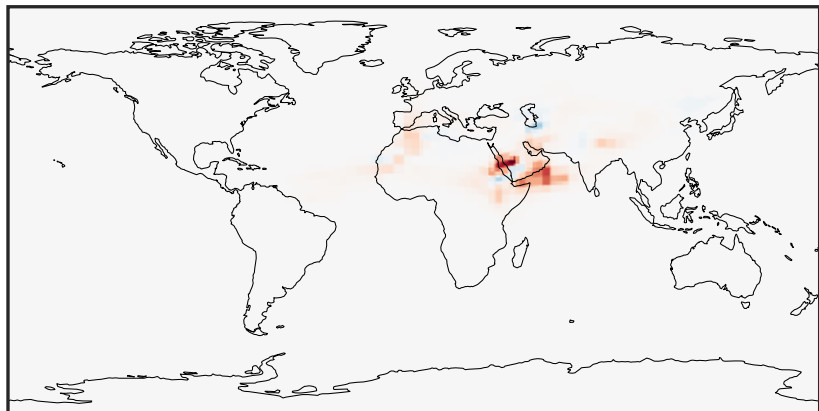
0.000 0.564 1.129 1.693 2.257
µg/m3

GCHP_14.2.0 (Dev)
c24



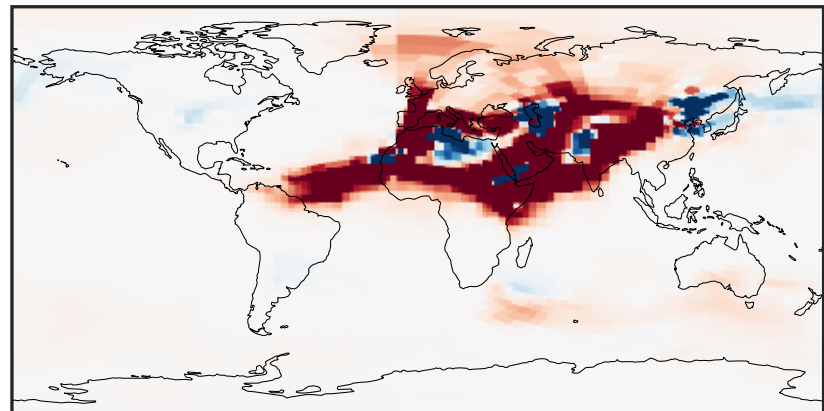
0.000 0.564 1.129 1.693 2.257
µg/m3

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



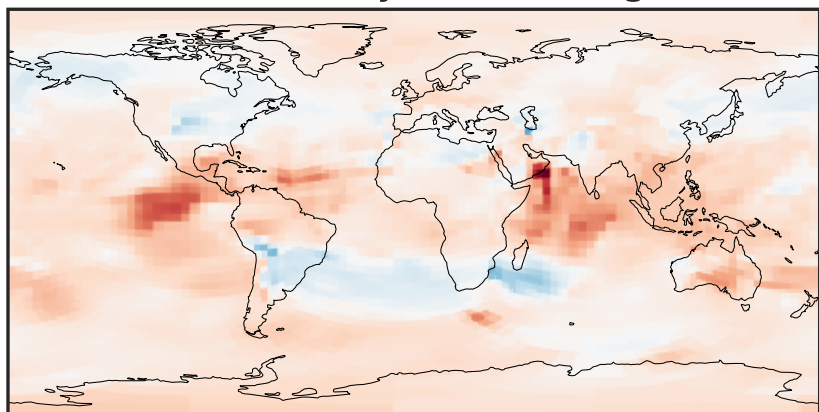
-0.005 0.000 0.005
µg/m3

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



-6 0 6
µg/m3 1e-5

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



0.96785 0.98393 1.00000 1.01661 1.03321
unitless

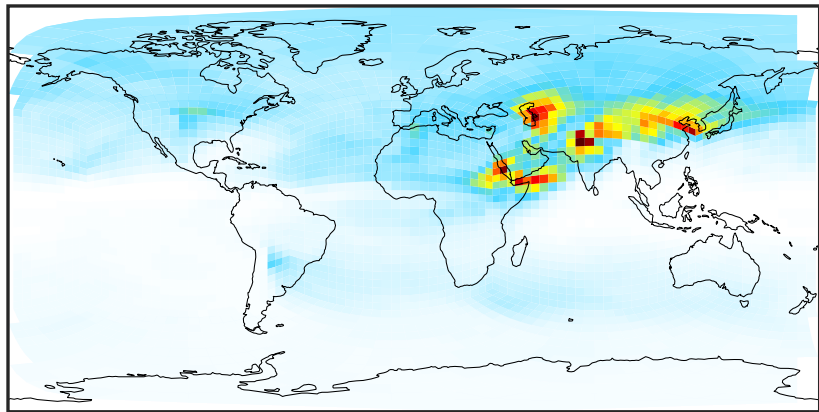
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

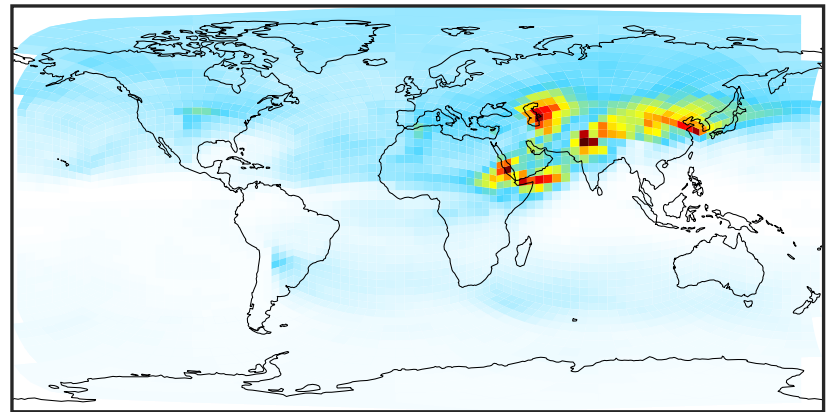
SpeciesConcVV_NH4 (Jul2019)

GCHP_14.0.0 (Ref)
c24



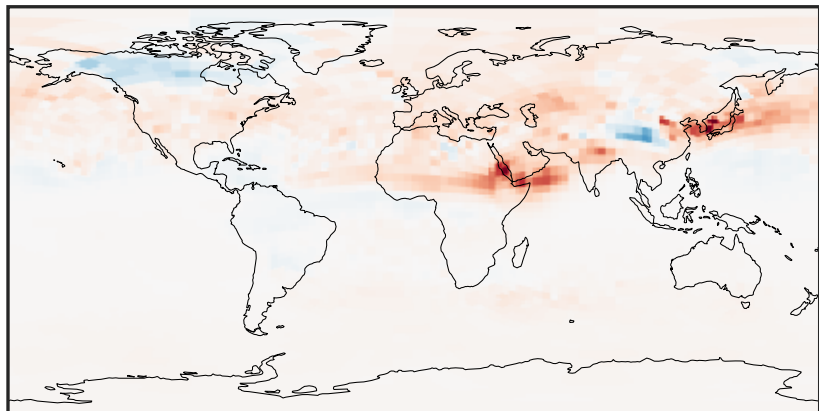
0.0002 0.0541 0.1083 0.1624 0.2168
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



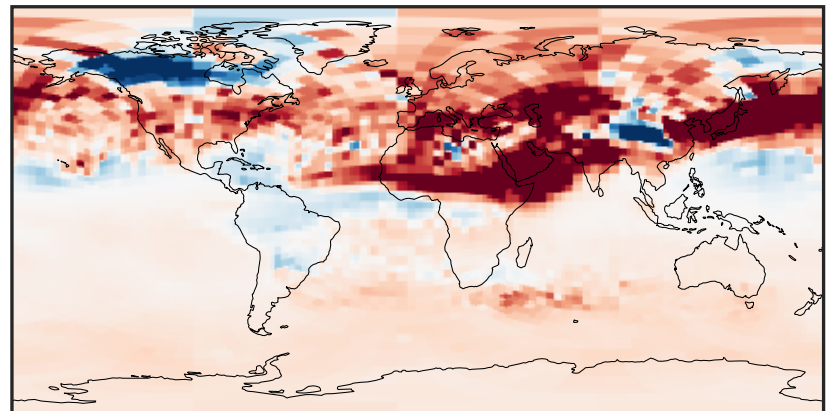
0.0002 0.0541 0.1083 0.1624 0.2168
 $\mu\text{g}/\text{m}^3$

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



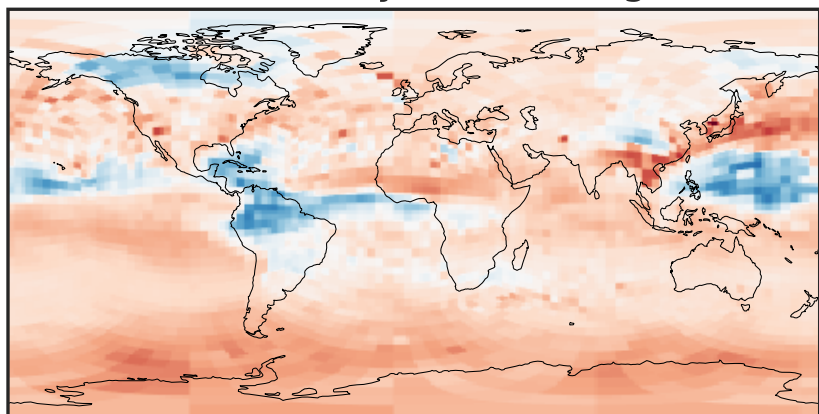
-0.003 0.000 0.003
 $\mu\text{g}/\text{m}^3$

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



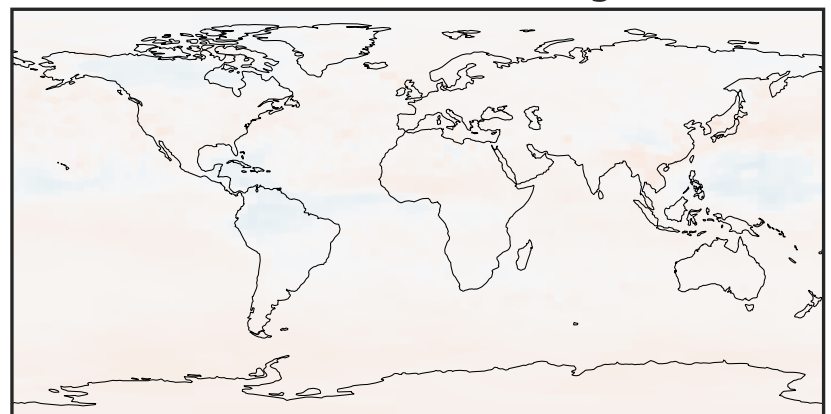
-0.0005 0.0000 0.0005
 $\mu\text{g}/\text{m}^3$

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



0.9170 0.9585 1.0000 1.0452 1.0905
unitless

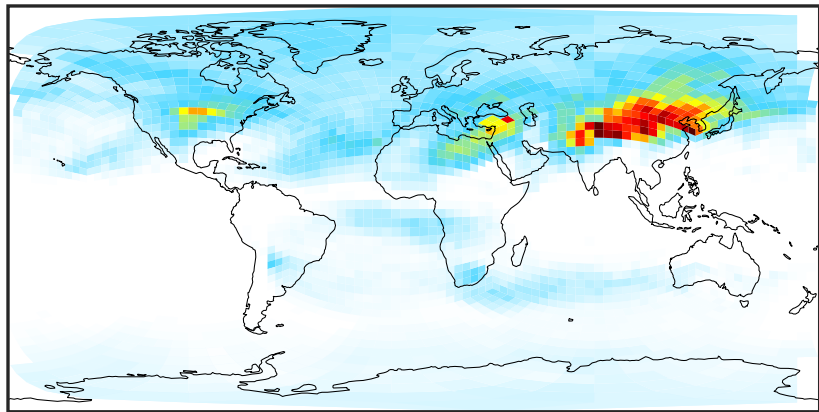
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

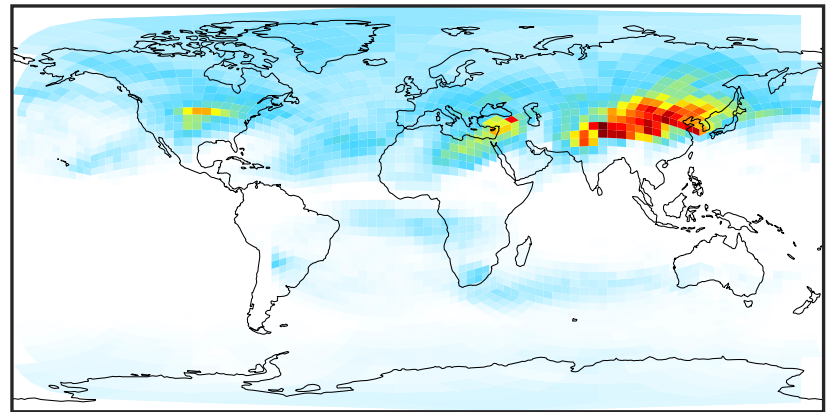
SpeciesConcVV_NIT (Jul2019)

GCHP_14.0.0 (Ref)
c24



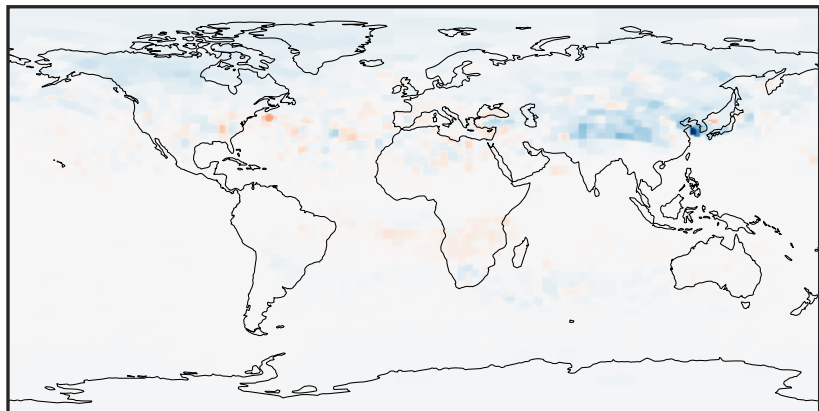
0.0000 0.0716 0.1432 0.2149 0.2865
µg/m3

GCHP_14.2.0 (Dev)
c24



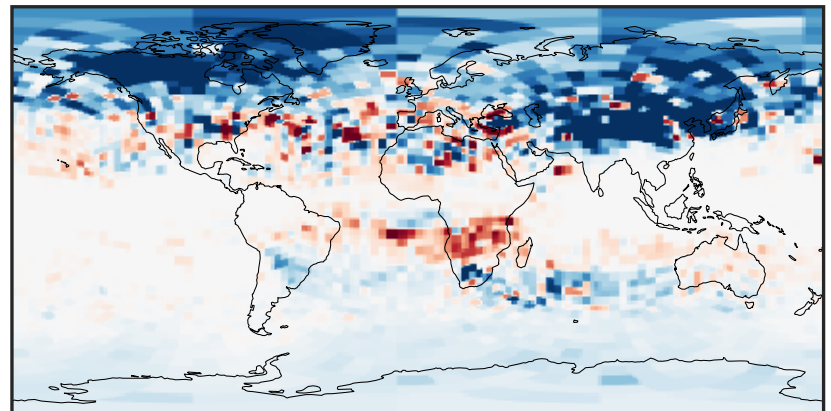
0.0000 0.0716 0.1432 0.2149 0.2865
µg/m3

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



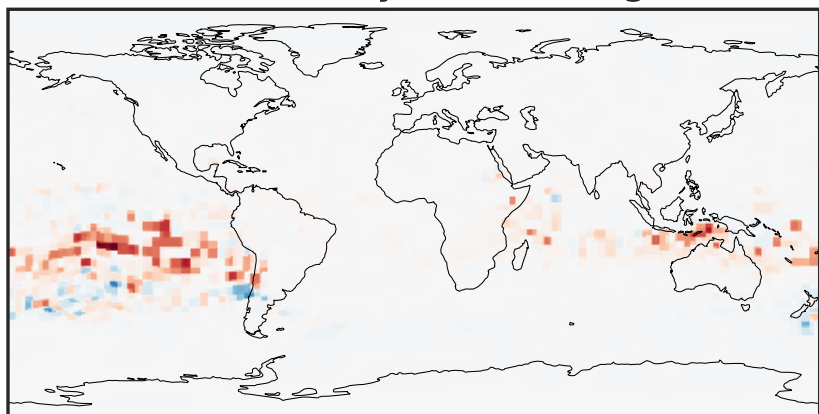
-0.025 0.000 0.025
µg/m3

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



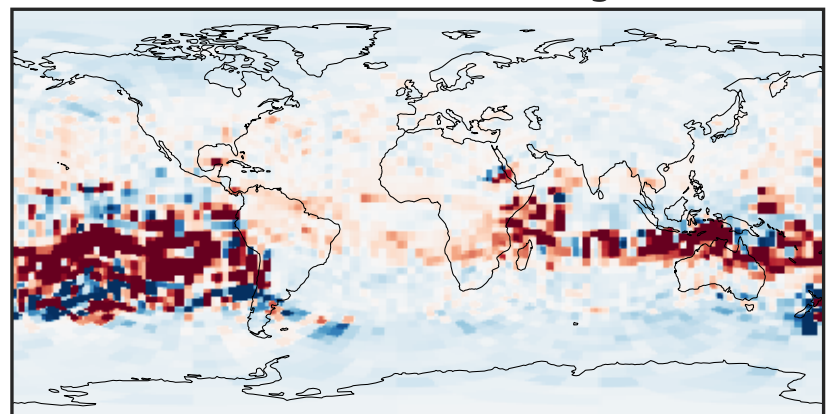
-0.0025 0.0000 0.0025
µg/m3

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



unitless

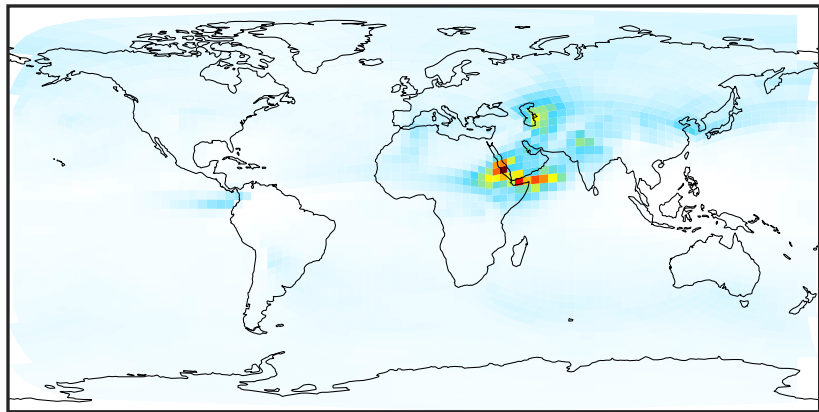
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

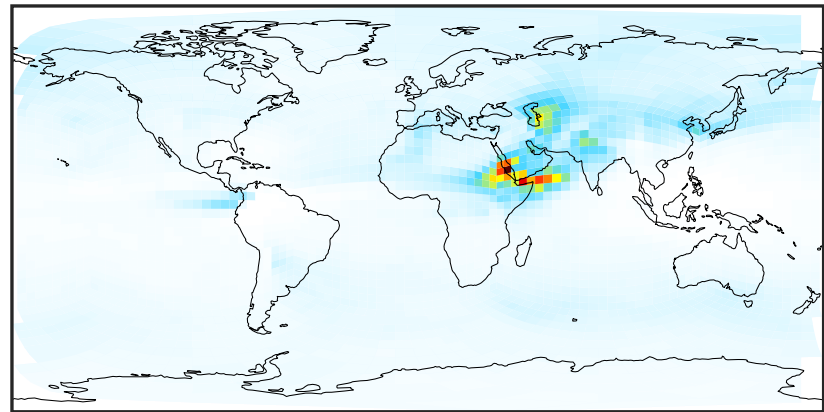
SpeciesConcVV_SO4 (Jul2019)

GCHP_14.0.0 (Ref)
c24



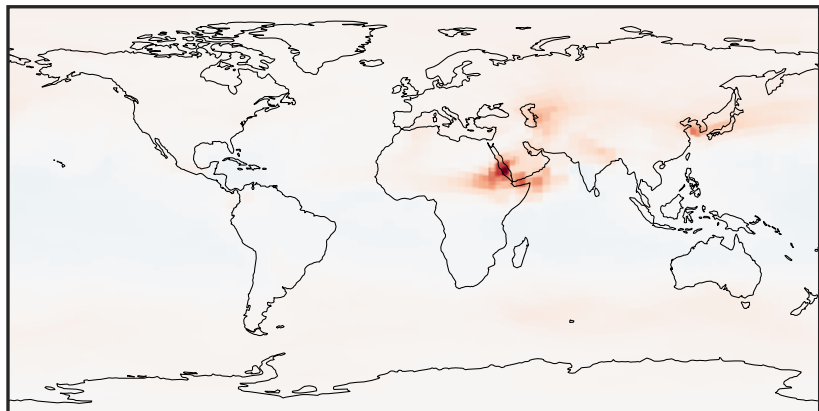
0.004 0.304 0.608 0.912 1.220
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



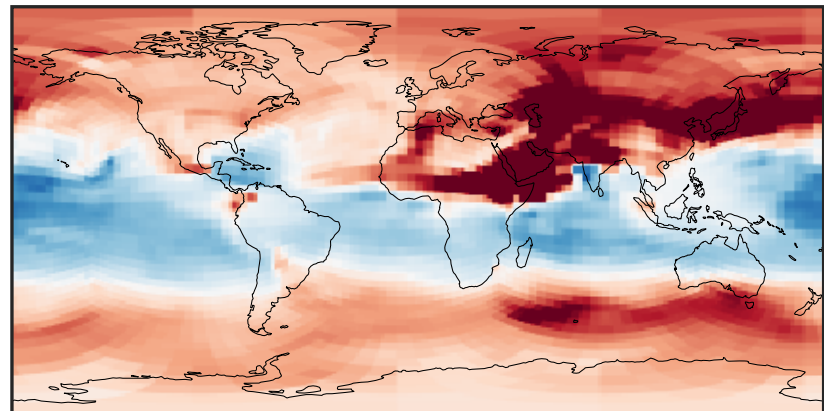
0.004 0.304 0.608 0.912 1.220
 $\mu\text{g}/\text{m}^3$

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



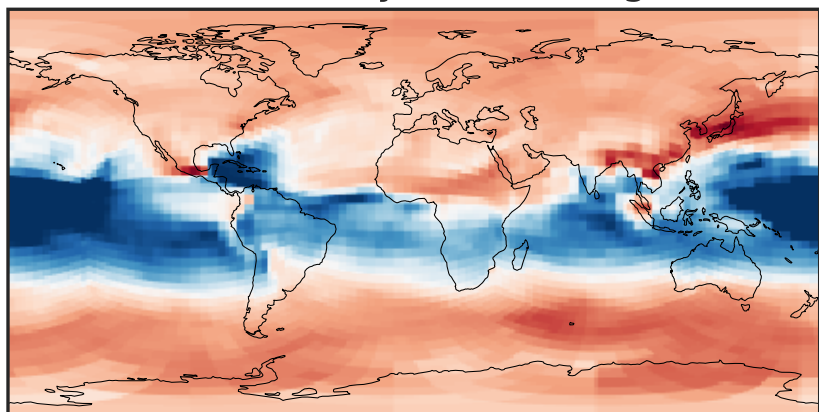
-0.0568 -0.0284 0.0000 0.0284 0.0568
 $\mu\text{g}/\text{m}^3$

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



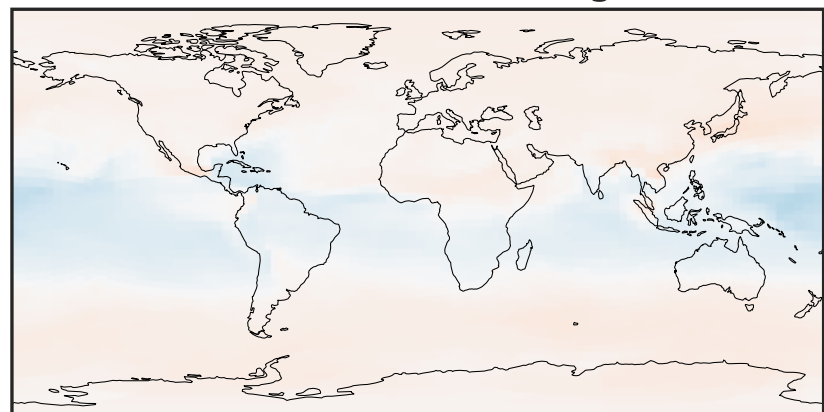
-0.0025 0.0000 0.0025
 $\mu\text{g}/\text{m}^3$

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



0.9037 0.9519 1.0000 1.0533 1.1065
unitless

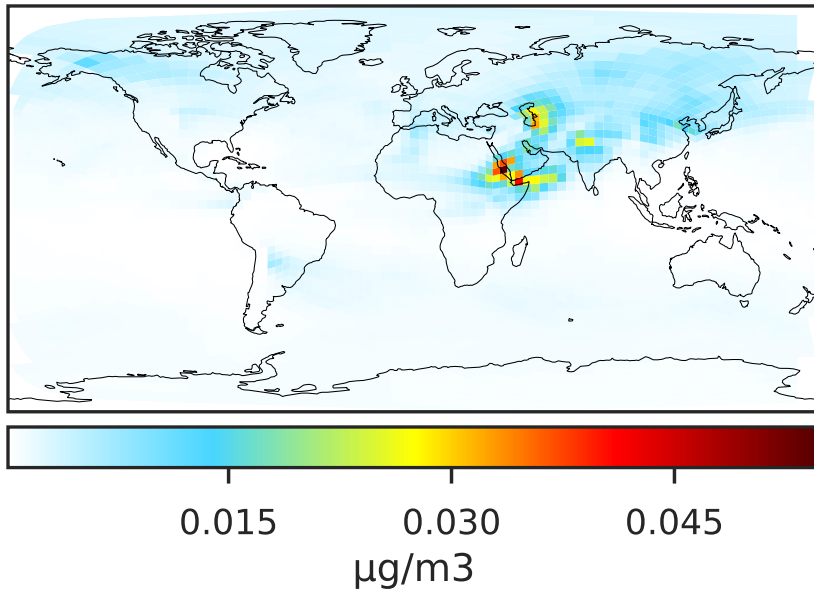
Ratio (1x1.25)
Dev/Ref, Fixed Range



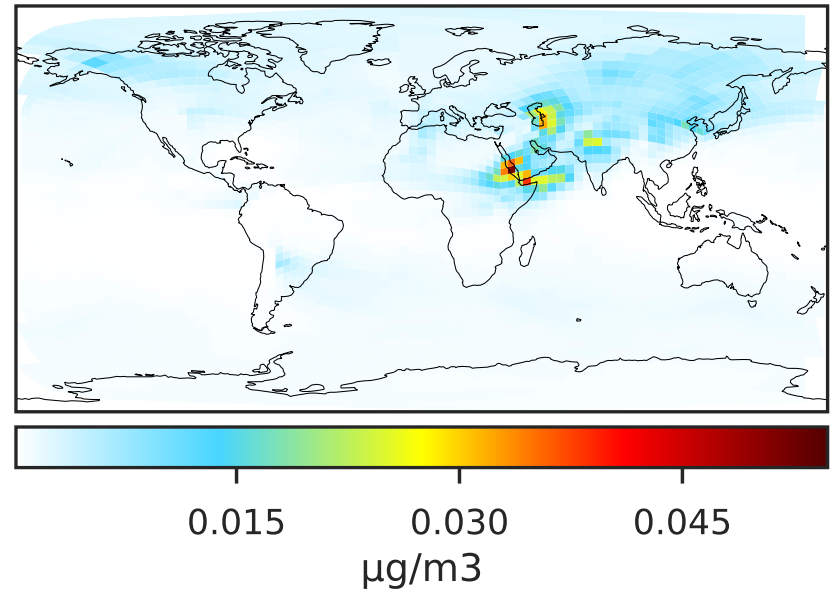
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_HMS (Jul2019)

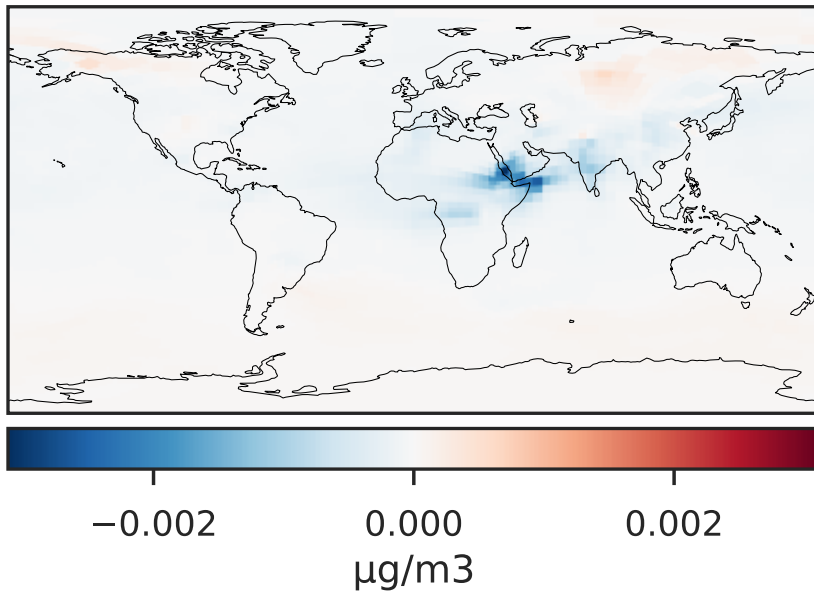
GCHP_14.0.0 (Ref)
c24



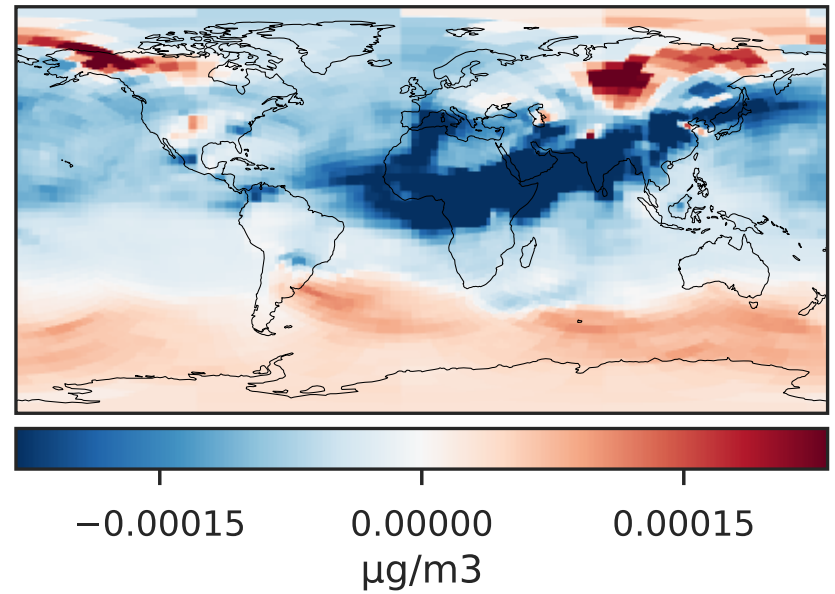
GCHP_14.2.0 (Dev)
c24



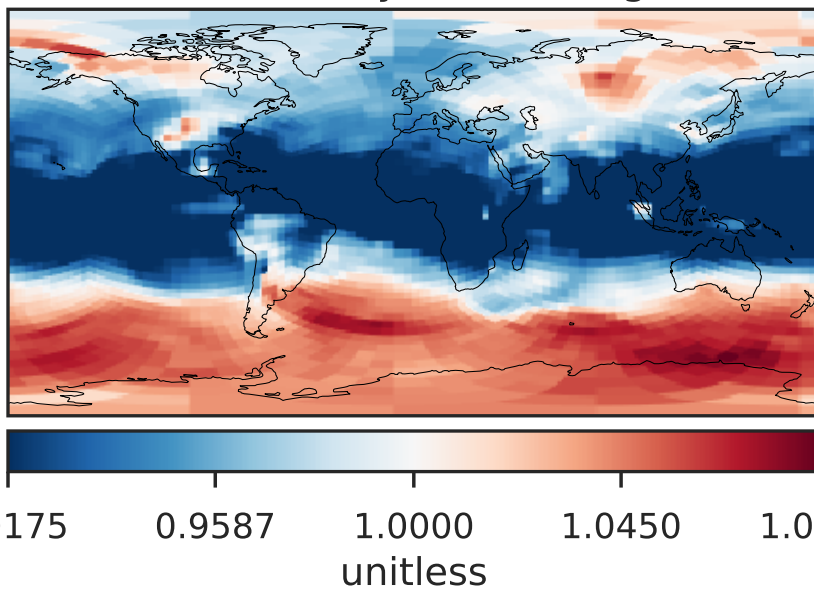
Difference (1x1.25)
Dev - Ref, Dynamic Range



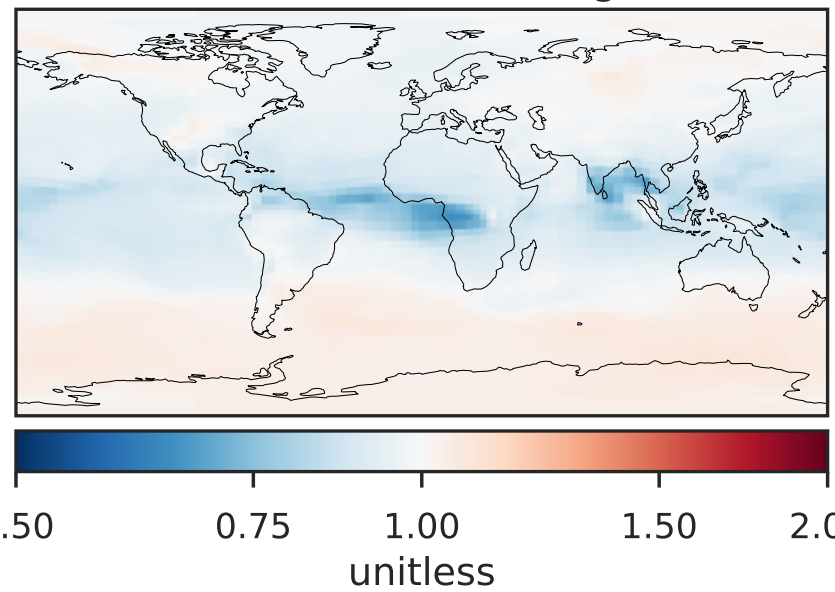
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

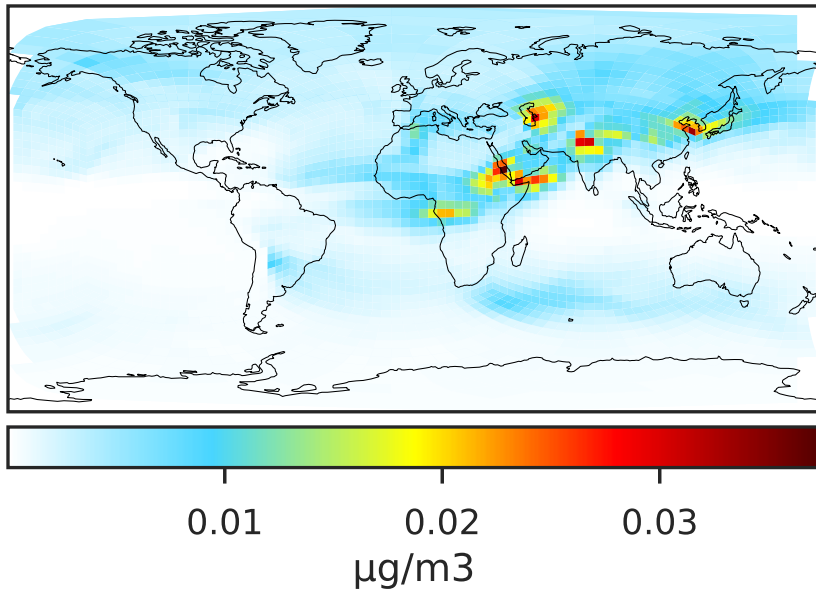


Ratio (1x1.25)
Dev/Ref, Fixed Range

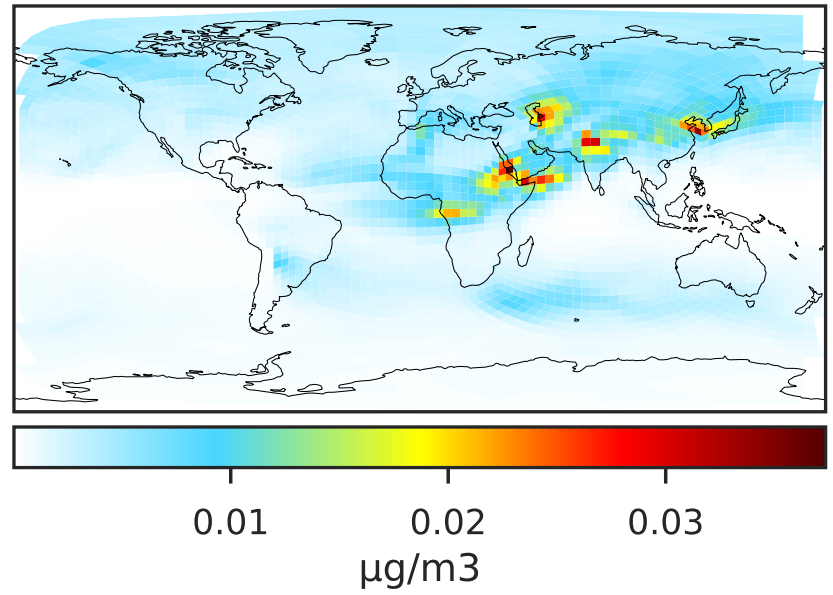


SpeciesConcVV_BCPI (Jul2019)

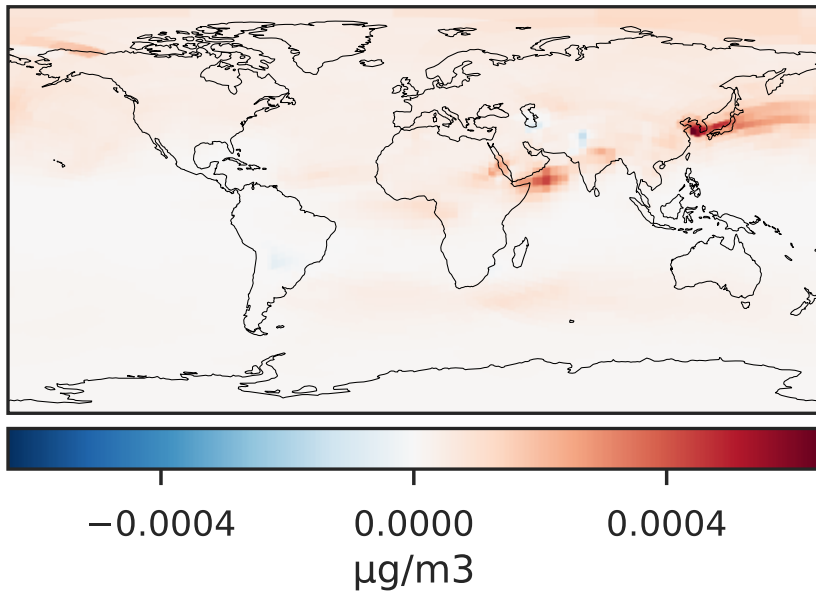
GCHP_14.0.0 (Ref)
c24



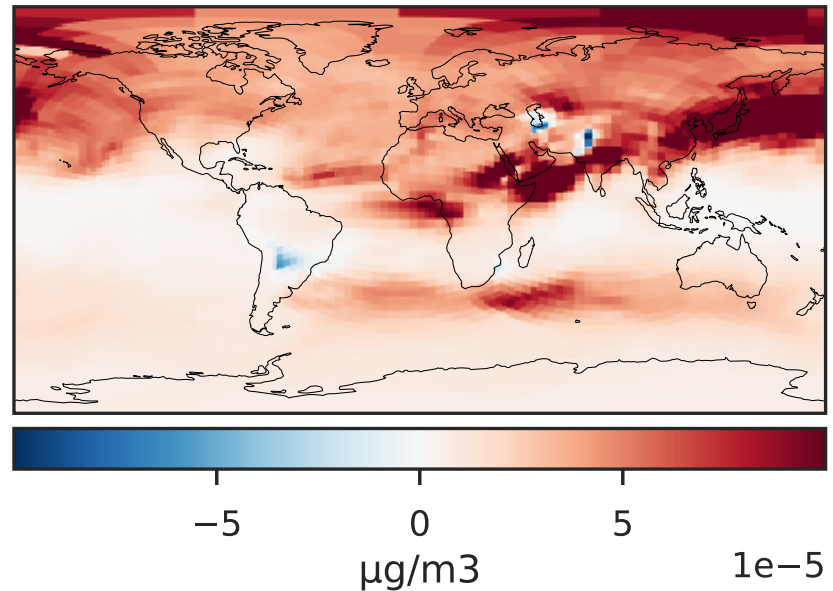
GCHP_14.2.0 (Dev)
c24



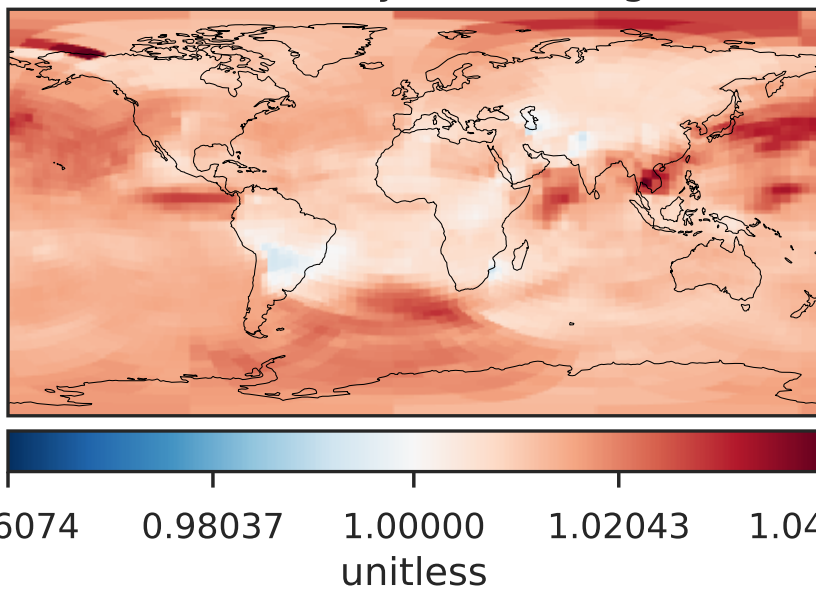
Difference (1x1.25)
Dev - Ref, Dynamic Range



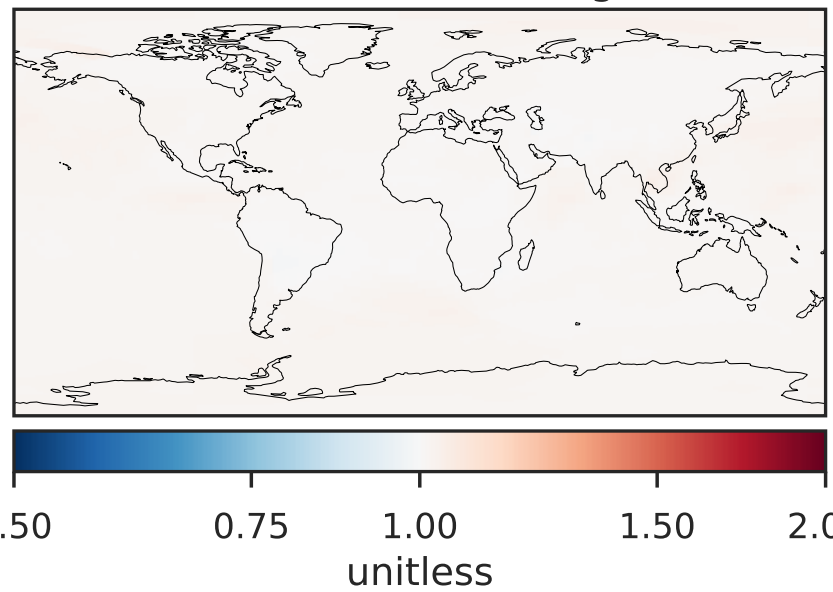
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

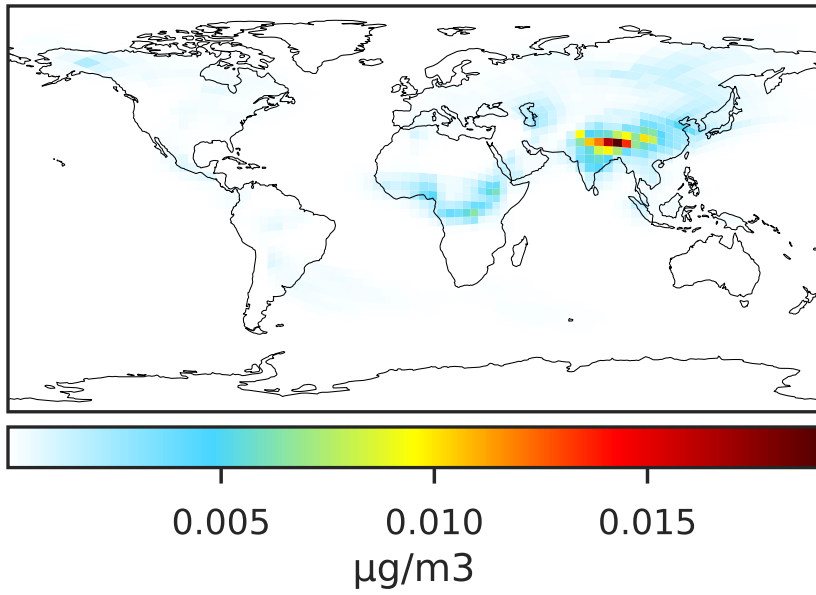


Ratio (1x1.25)
Dev/Ref, Fixed Range

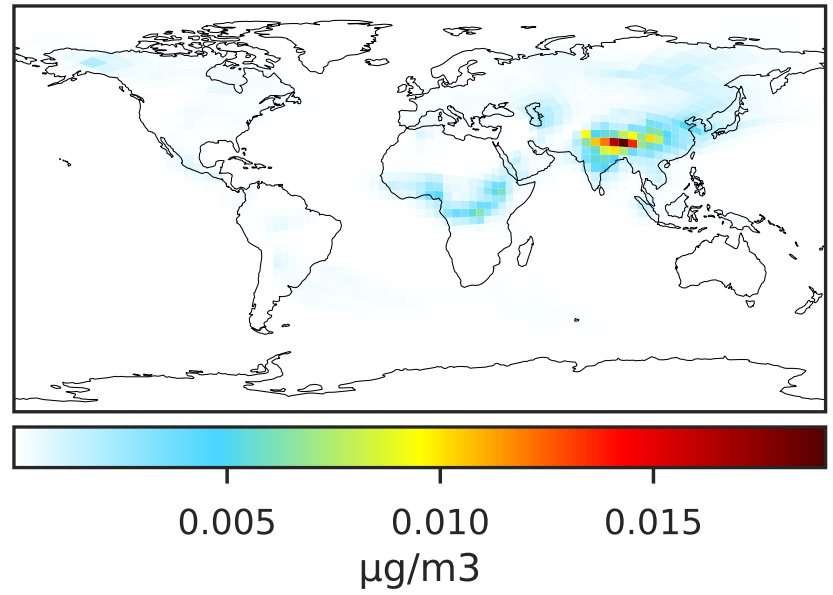


SpeciesConcVV_BCPO (Jul2019)

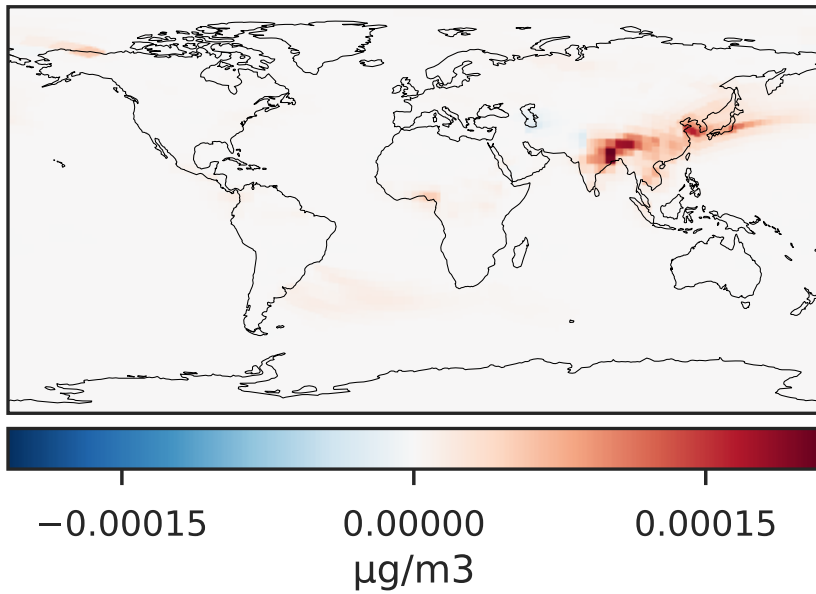
GCHP_14.0.0 (Ref)
c24



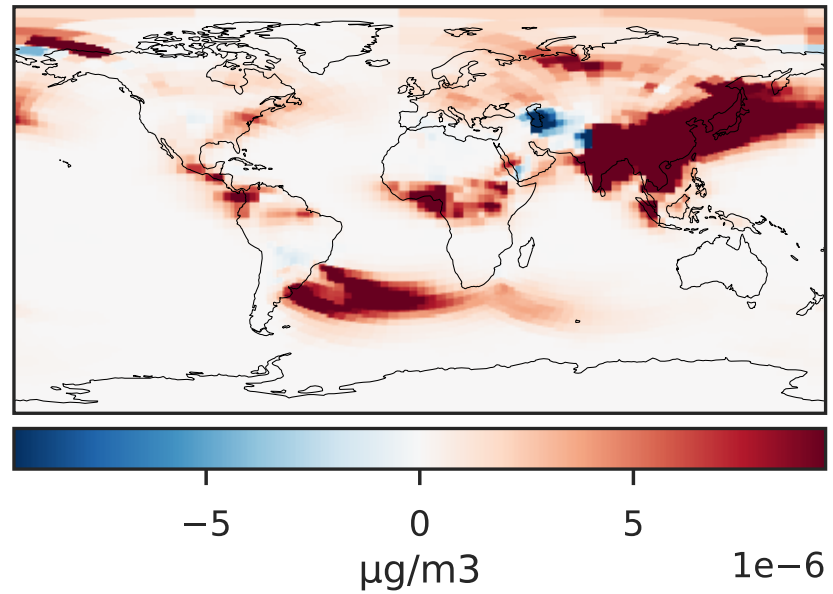
GCHP_14.2.0 (Dev)
c24



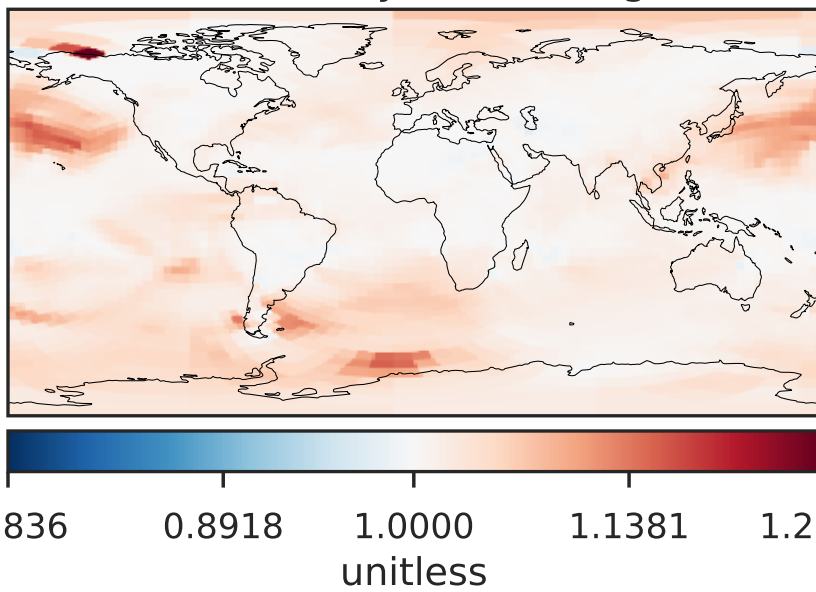
Difference (1x1.25)
Dev - Ref, Dynamic Range



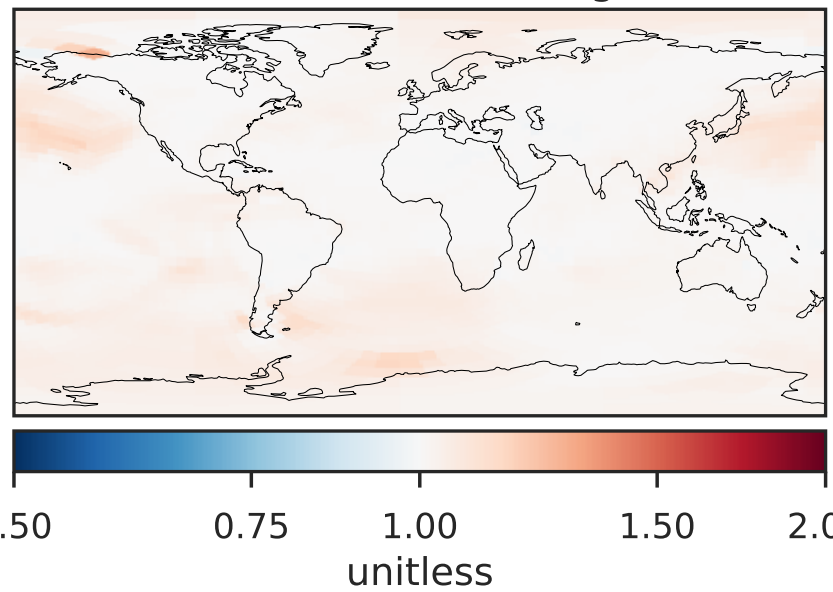
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

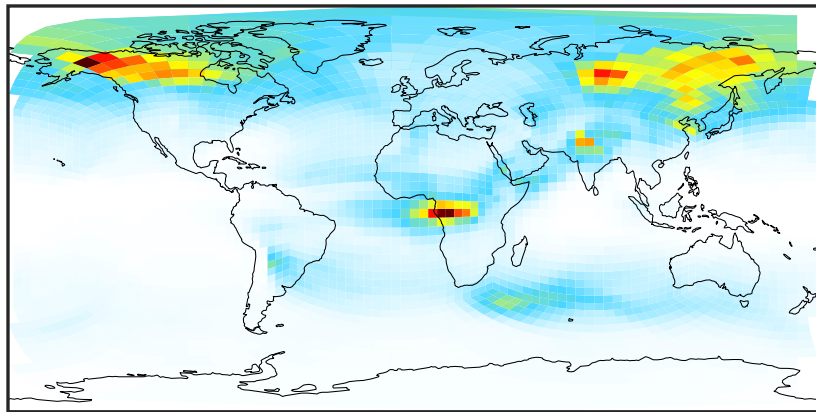


Ratio (1x1.25)
Dev/Ref, Fixed Range



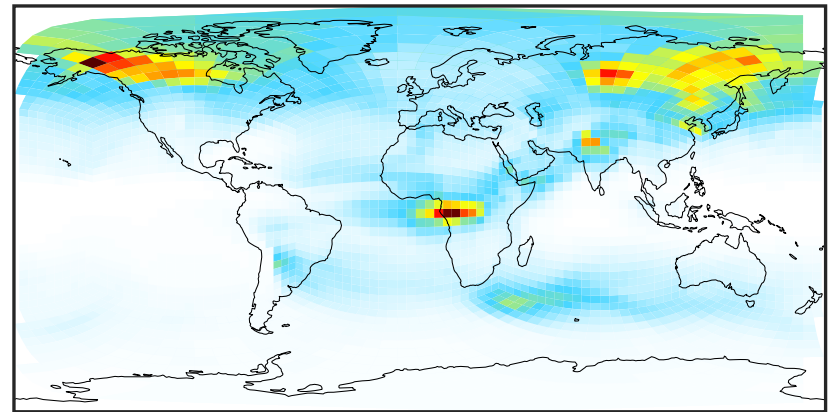
SpeciesConcVV_OCPI (Jul2019)

GCHP_14.0.0 (Ref)
c24



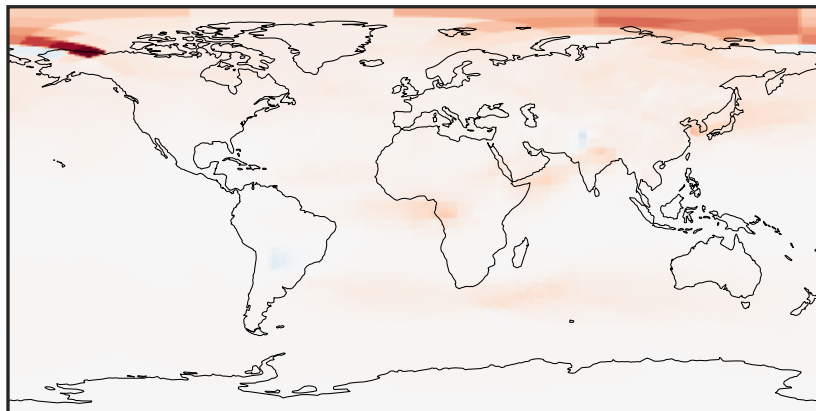
0.0001 0.0339 0.0679 0.1018 0.1358
µg/m3

GCHP_14.2.0 (Dev)
c24



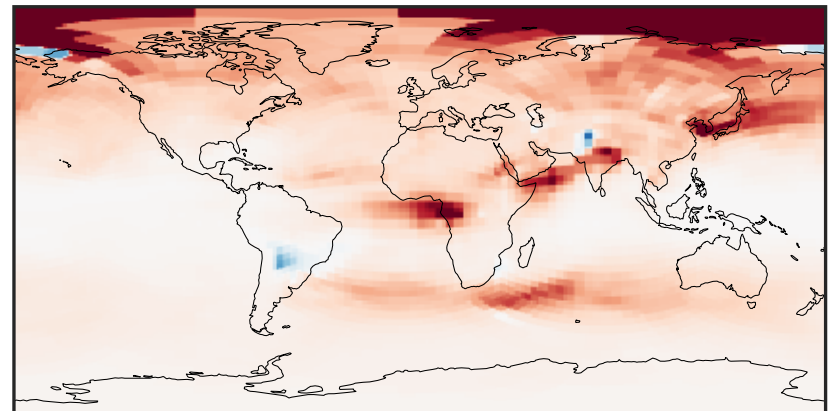
0.0001 0.0339 0.0679 0.1018 0.1358
µg/m3

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



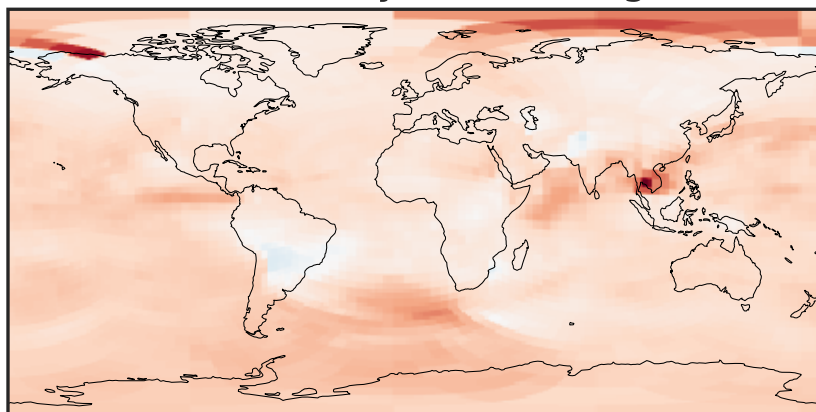
-0.0015 0.0000 0.0015
µg/m3

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



-0.0003 0.0000 0.0003
µg/m3

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



0.9421 0.9710 1.0000 1.0307 1.0615
unitless

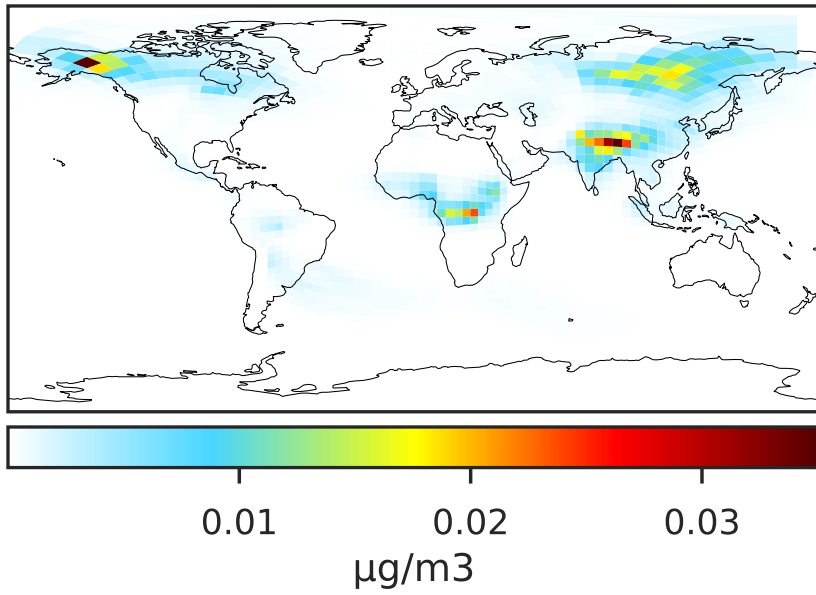
Ratio (1x1.25)
Dev/Ref, Fixed Range



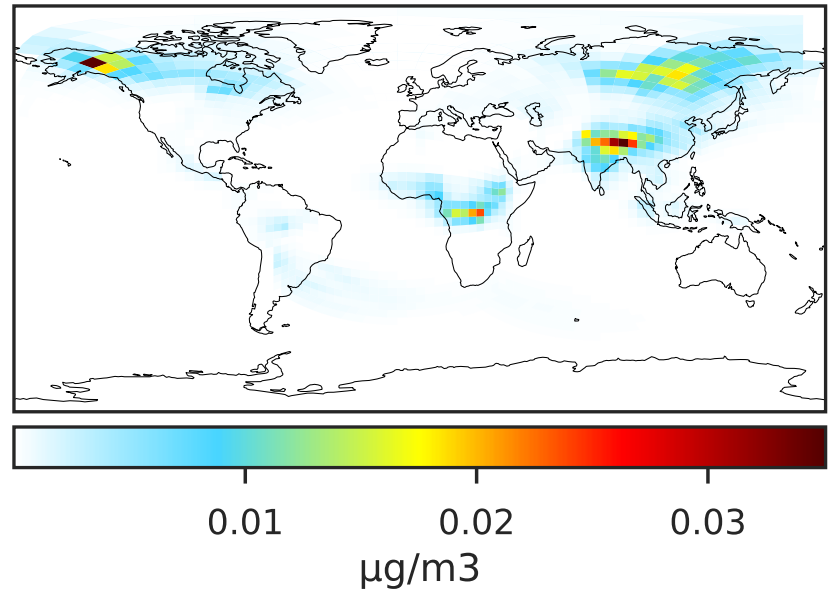
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_OCPO (Jul2019)

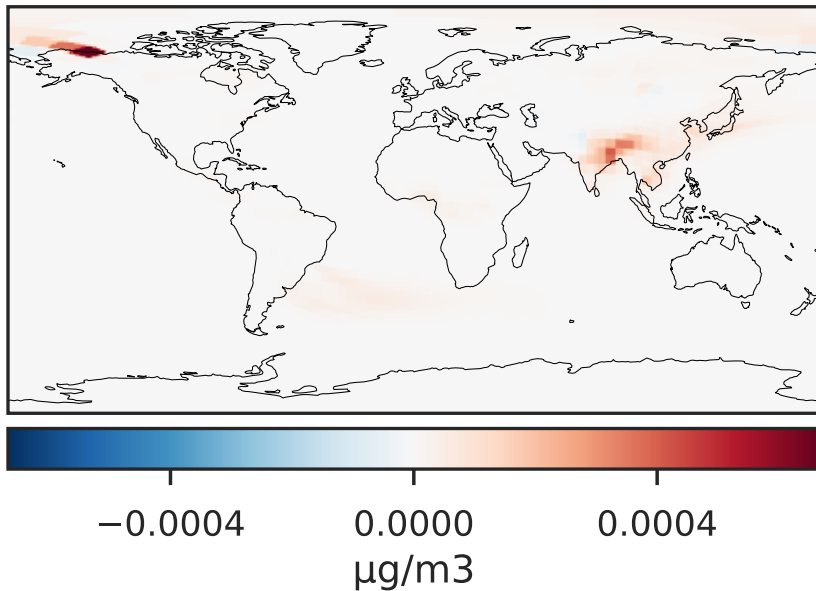
GCHP_14.0.0 (Ref)
c24



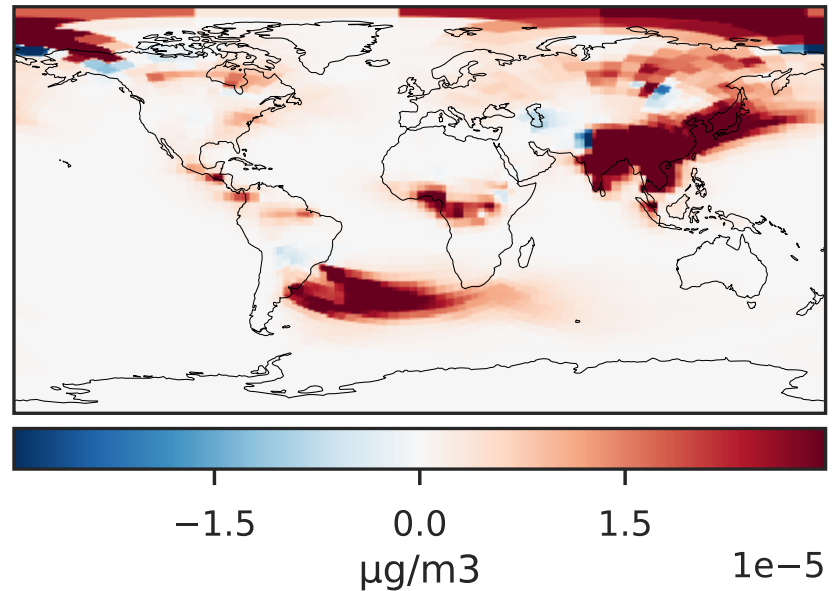
GCHP_14.2.0 (Dev)
c24



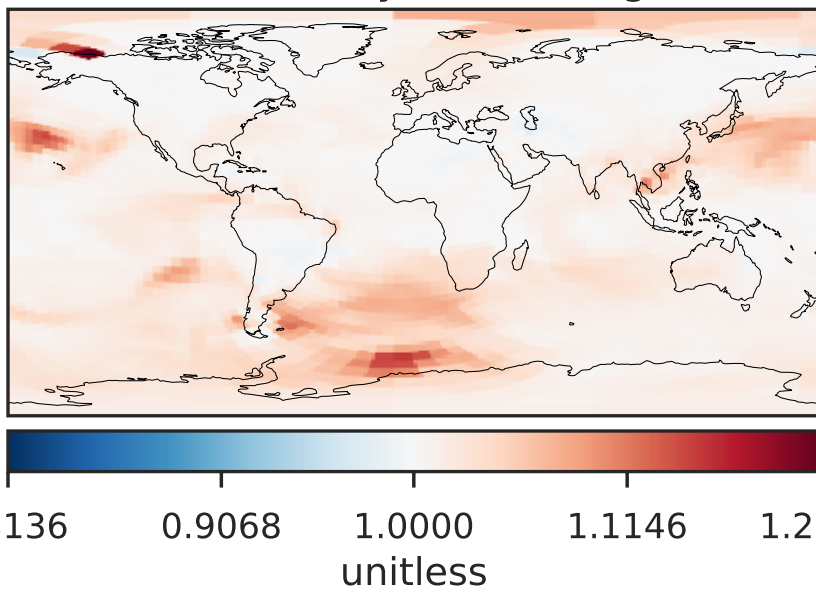
Difference (1x1.25)
Dev - Ref, Dynamic Range



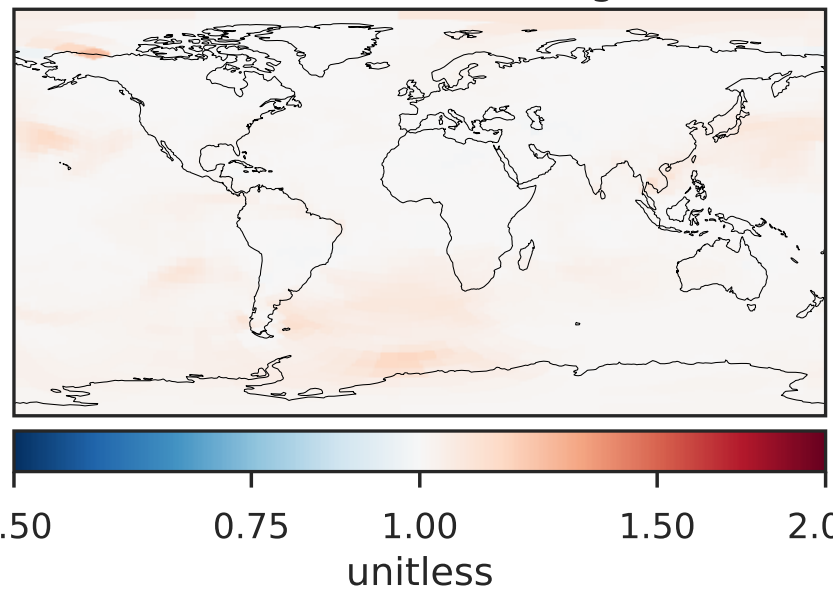
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

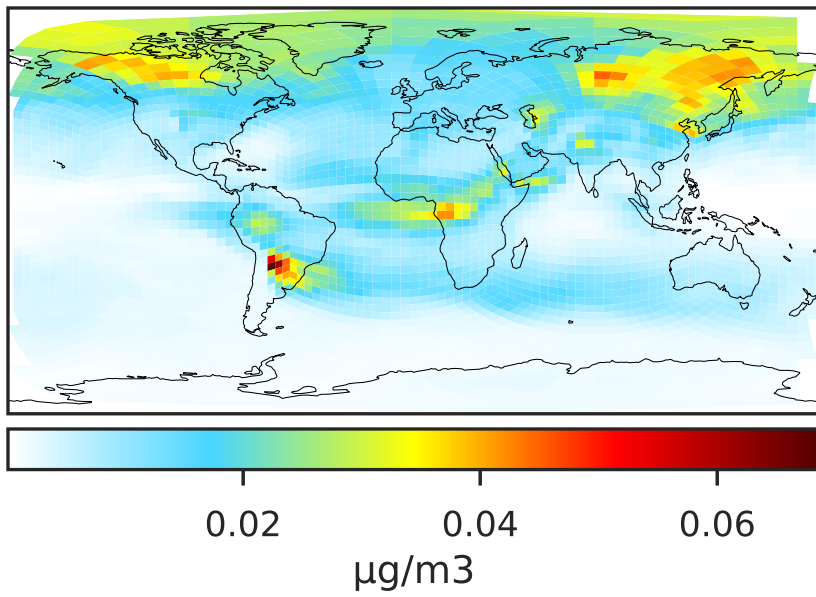


Ratio (1x1.25)
Dev/Ref, Fixed Range

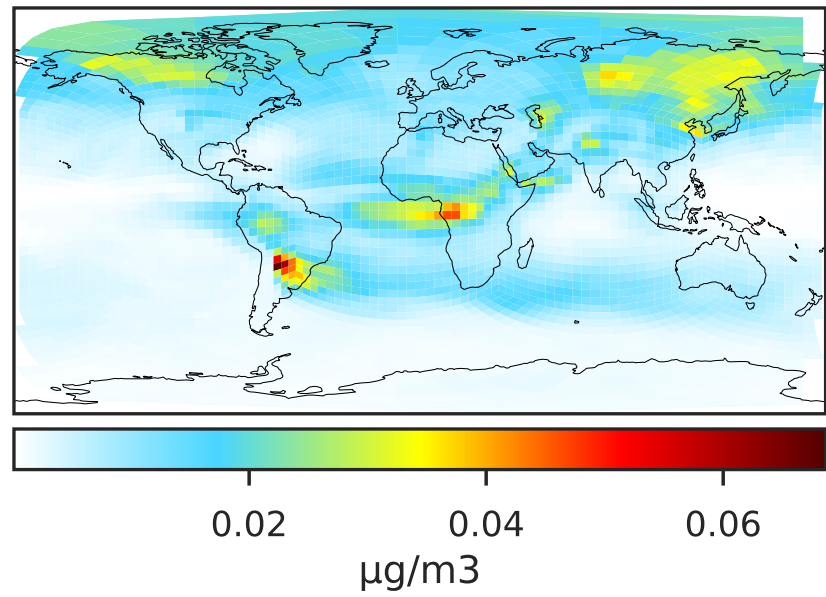


SpeciesConcVV_Complex_SOA (Jul2019)

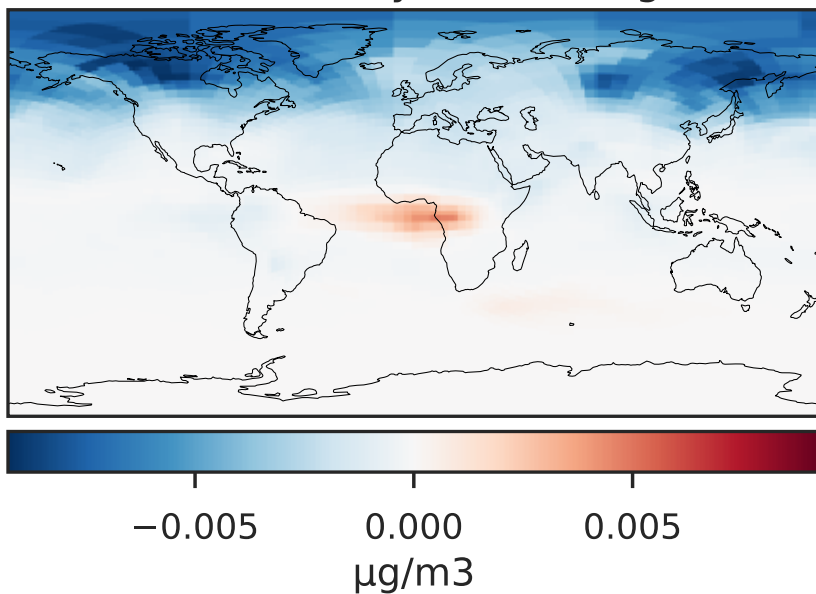
GCHP_14.0.0 (Ref)
c24



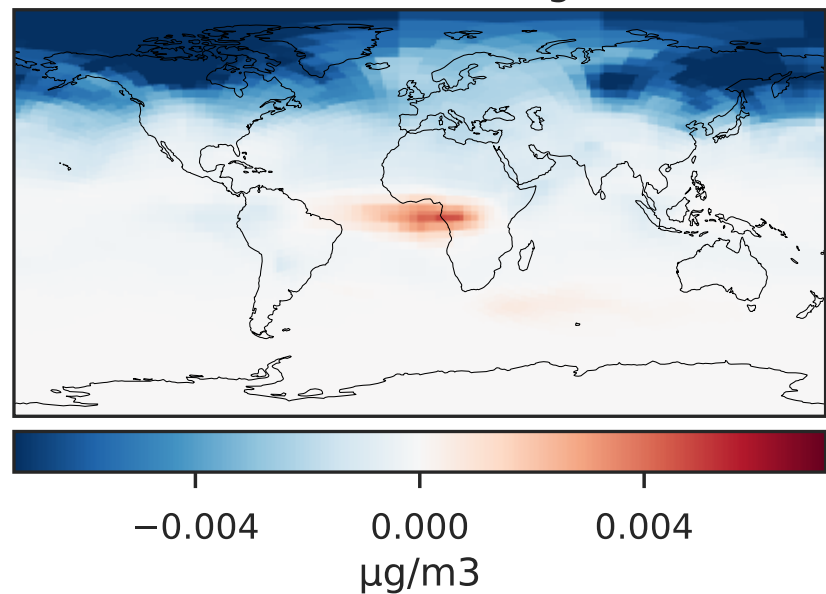
GCHP_14.2.0 (Dev)
c24



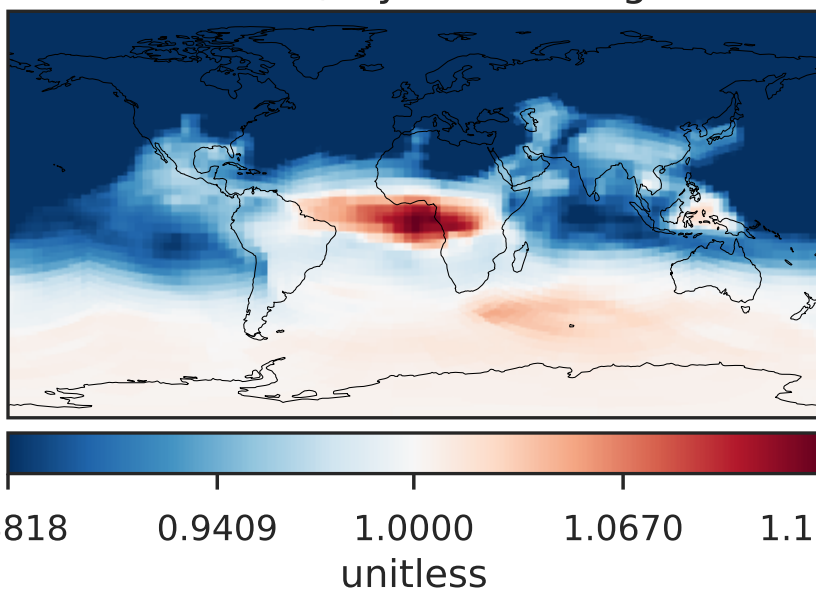
Difference (1x1.25)
Dev - Ref, Dynamic Range



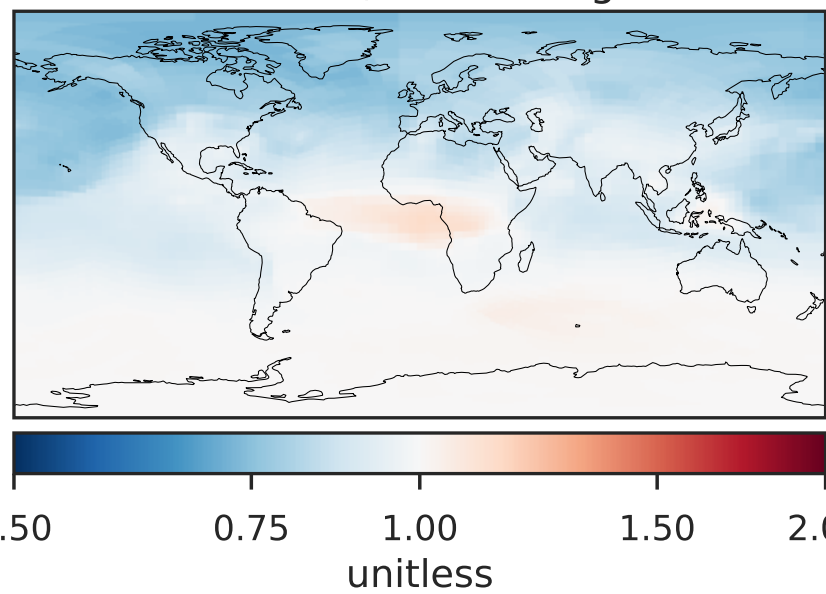
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

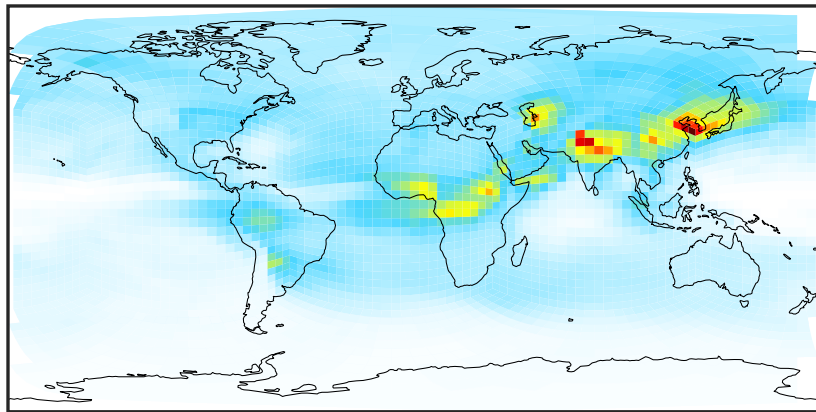


Ratio (1x1.25)
Dev/Ref, Fixed Range



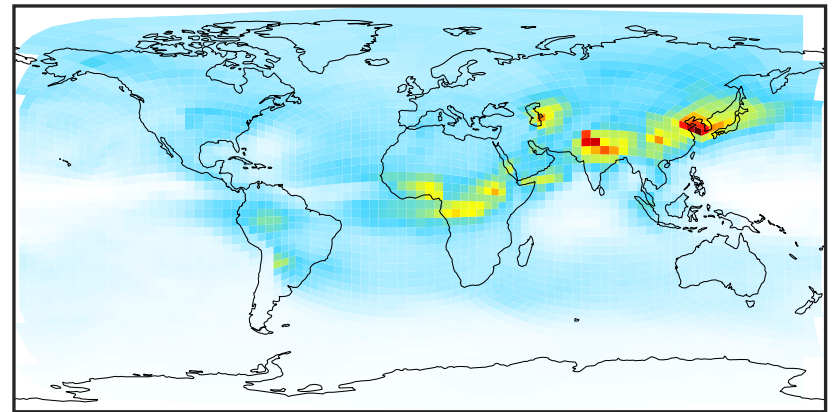
SpeciesConcVV_Simple_SOA (Jul2019)

GCHP_14.0.0 (Ref)
c24



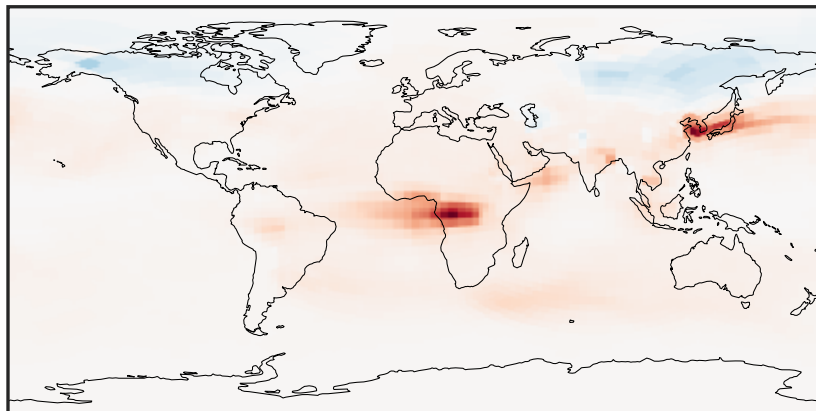
0.0020 0.1366 0.2733 0.4099 0.5485
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



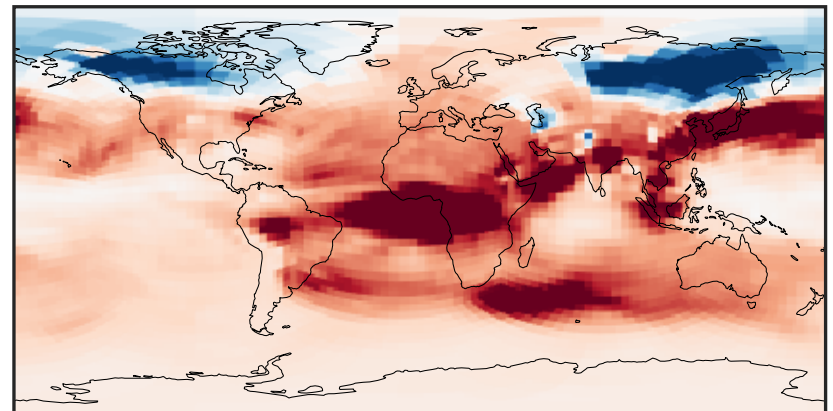
0.0020 0.1366 0.2733 0.4099 0.5485
 $\mu\text{g}/\text{m}^3$

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



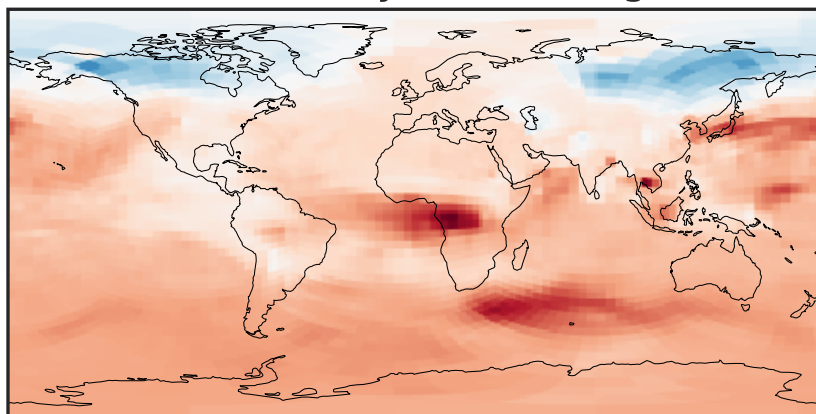
-0.005 0.000 0.005
 $\mu\text{g}/\text{m}^3$

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



-0.0006 0.0000 0.0006
 $\mu\text{g}/\text{m}^3$

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



0.96738 0.98369 1.00000 1.01686 1.03372
unitless

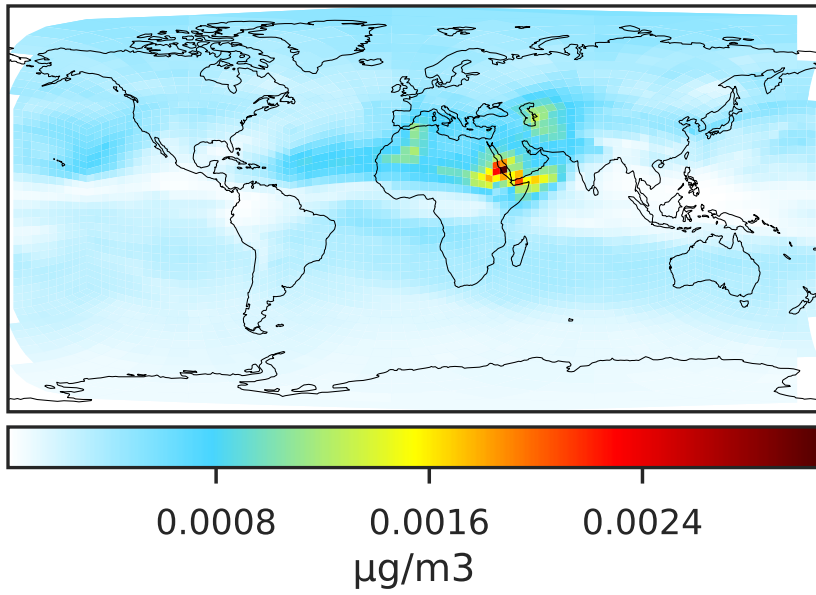
Ratio (1x1.25)
Dev/Ref, Fixed Range



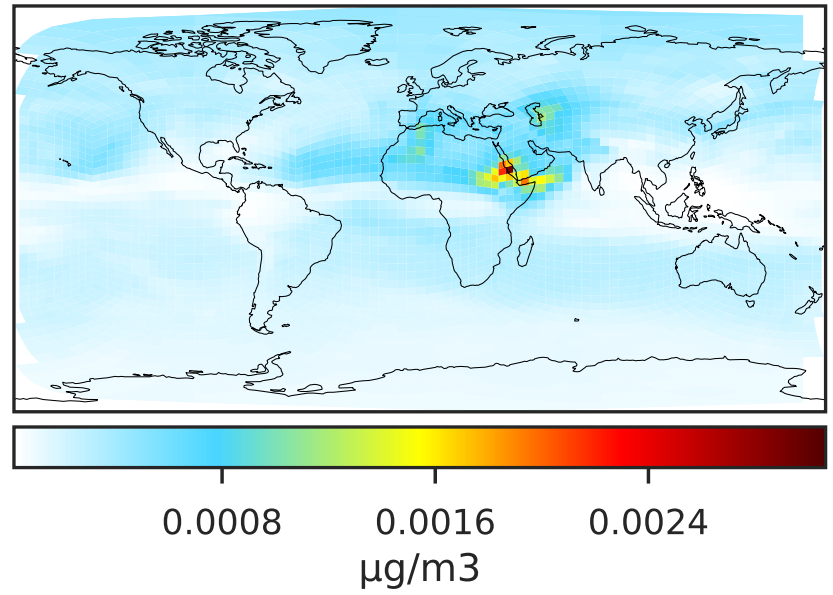
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_AERI (Jul2019)

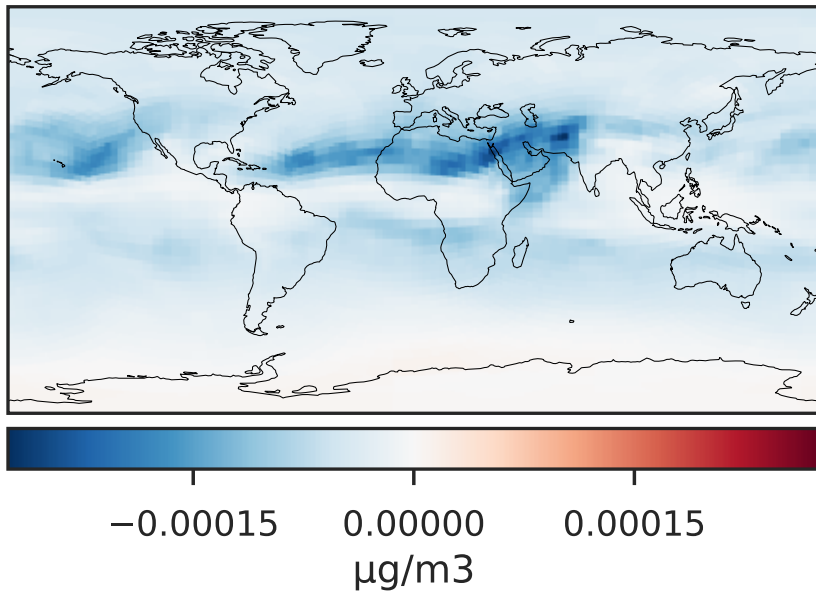
GCHP_14.0.0 (Ref)
c24



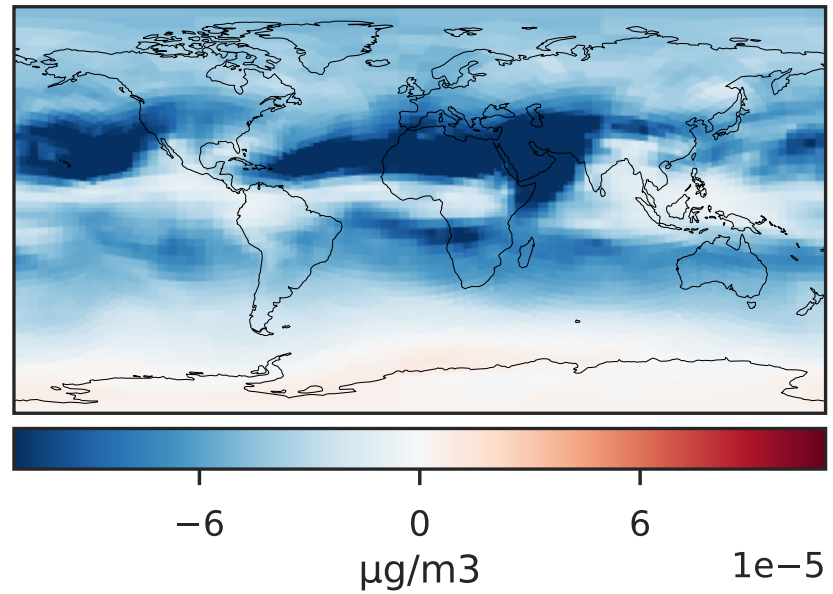
GCHP_14.2.0 (Dev)
c24



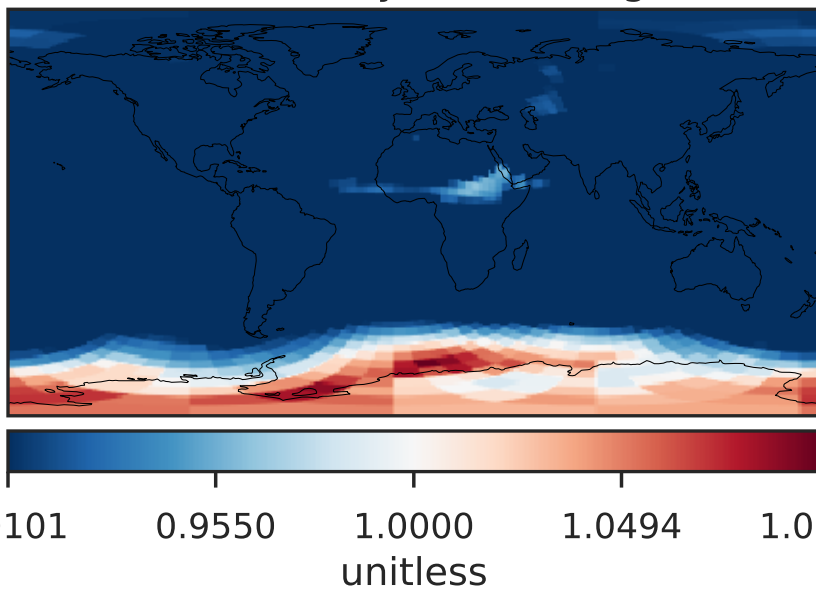
Difference (1x1.25)
Dev - Ref, Dynamic Range



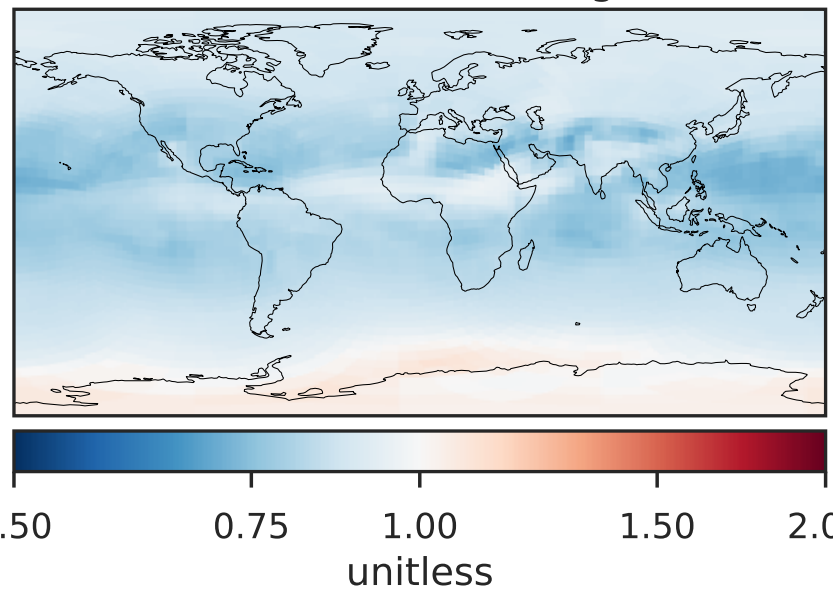
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

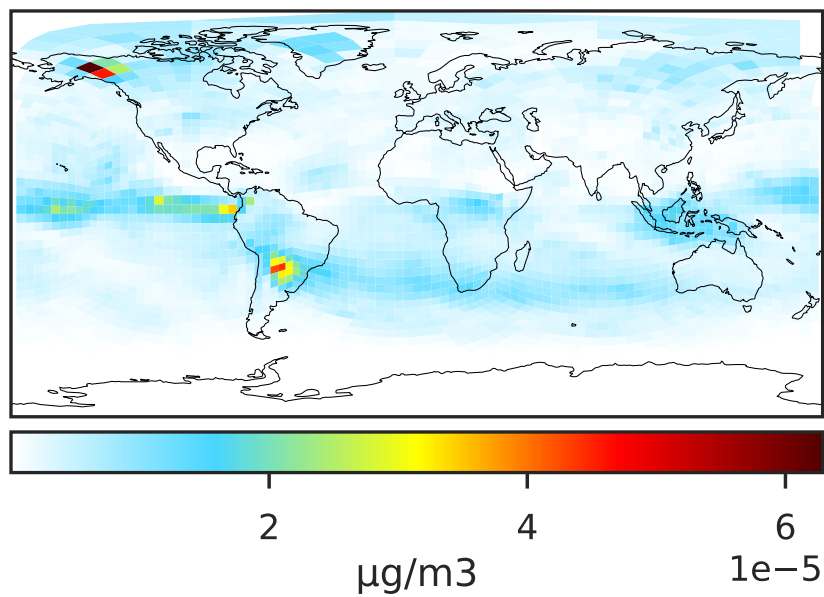


Ratio (1x1.25)
Dev/Ref, Fixed Range

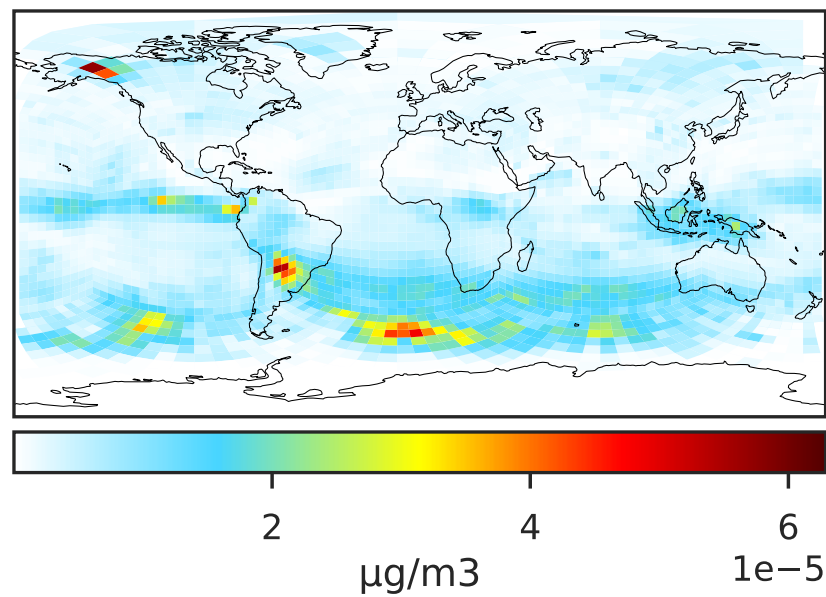


SpeciesConcVV_BrSALA (Jul2019)

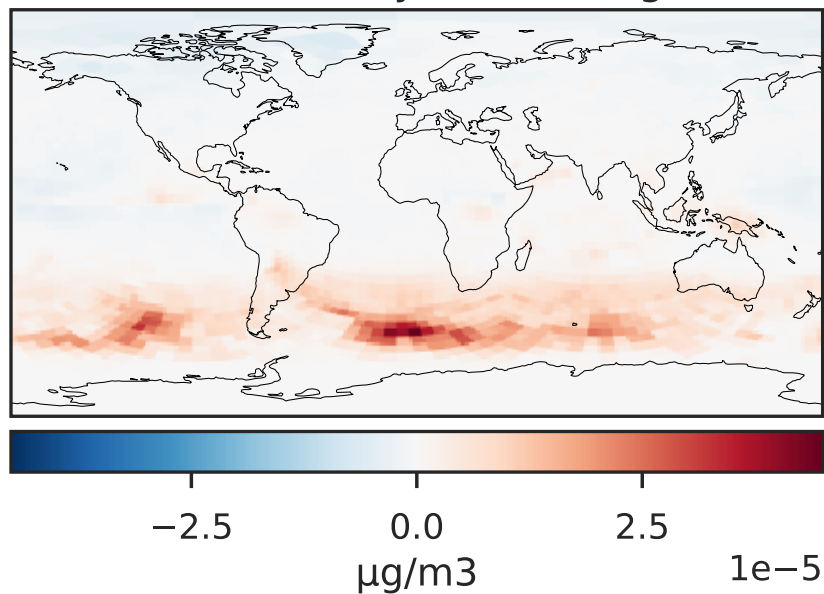
GCHP_14.0.0 (Ref)
c24



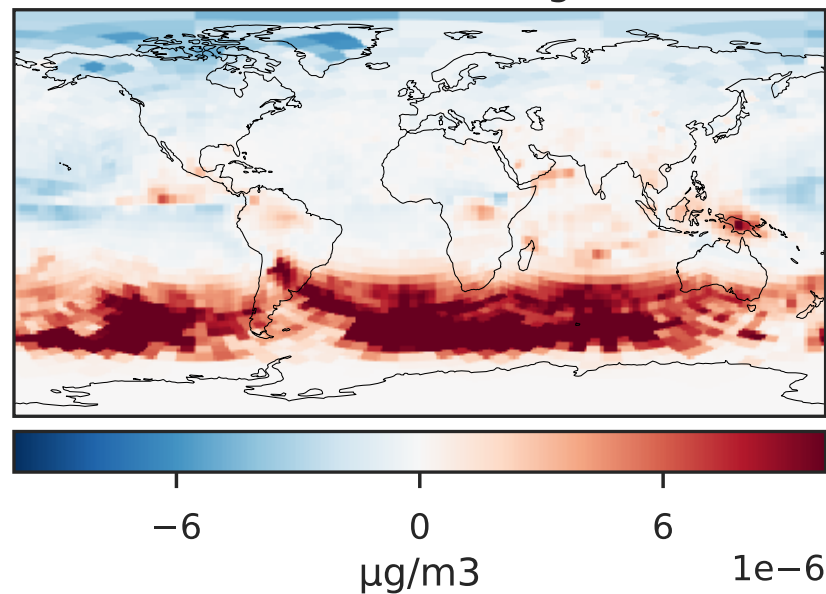
GCHP_14.2.0 (Dev)
c24



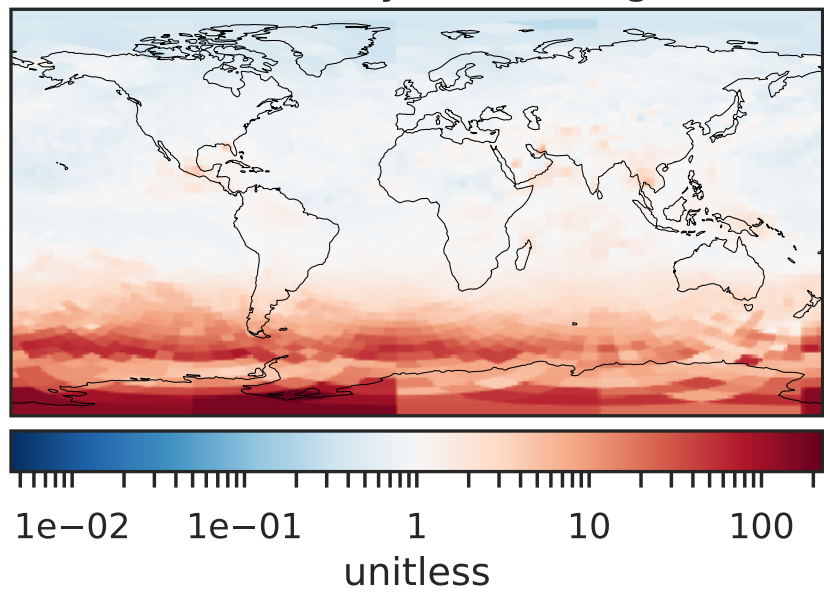
Difference (1x1.25)
Dev - Ref, Dynamic Range



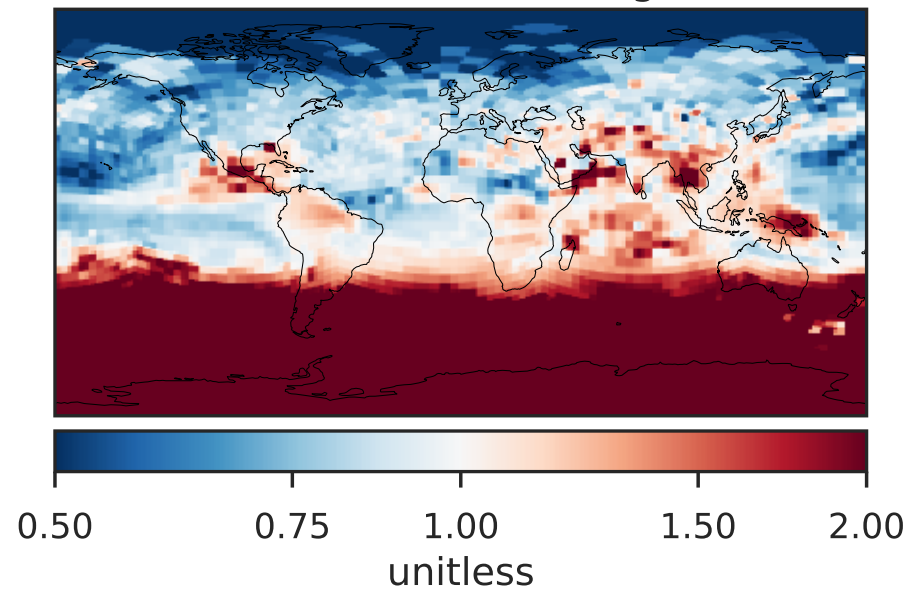
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

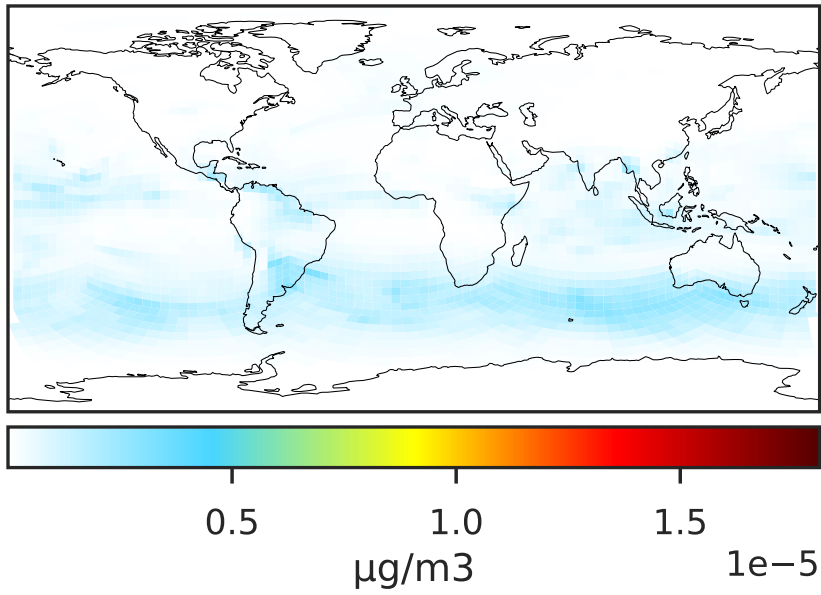


Ratio (1x1.25)
Dev/Ref, Fixed Range

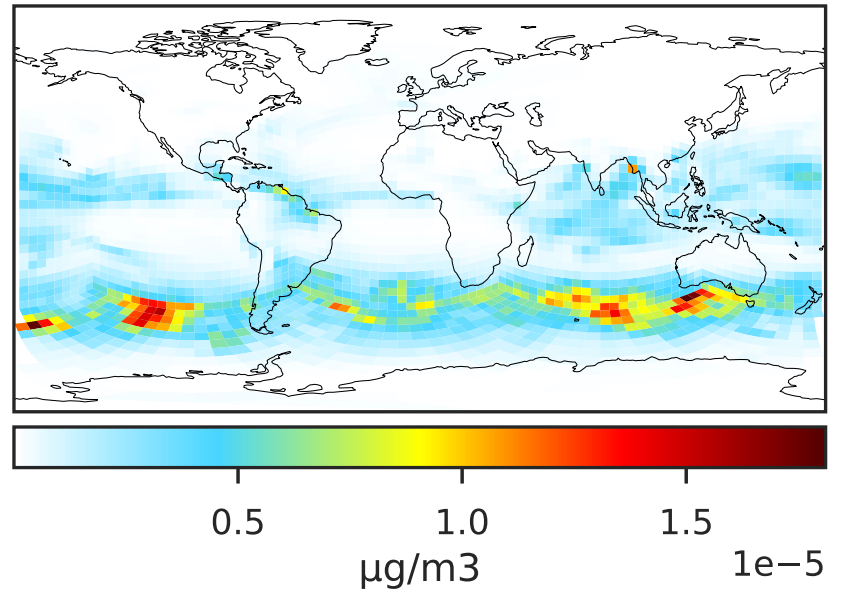


SpeciesConcVW_BrSALC (Jul2019)

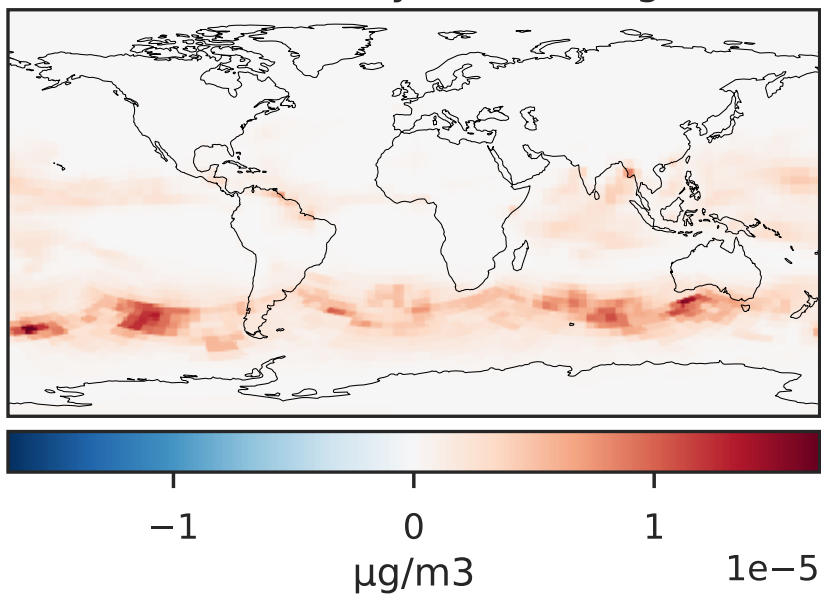
GCHP_14.0.0 (Ref)
c24



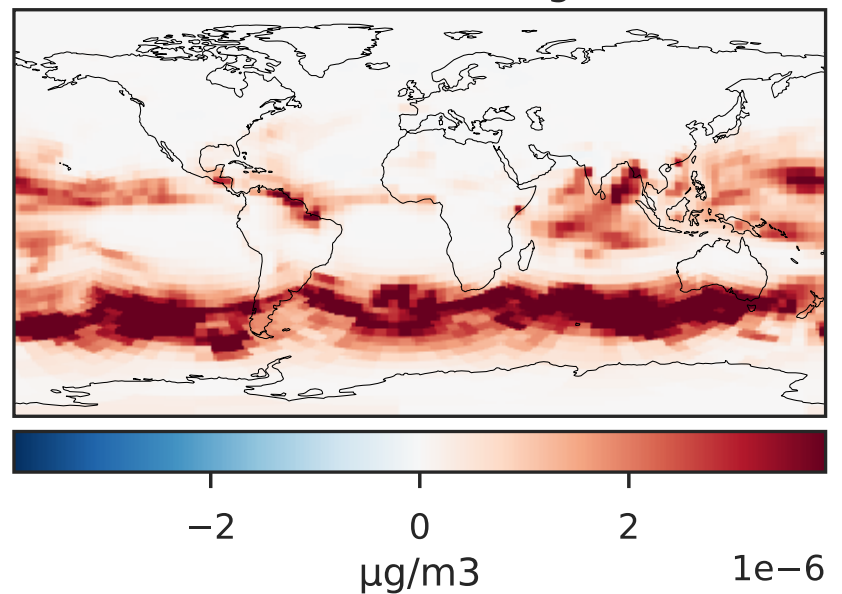
GCHP_14.2.0 (Dev)
c24



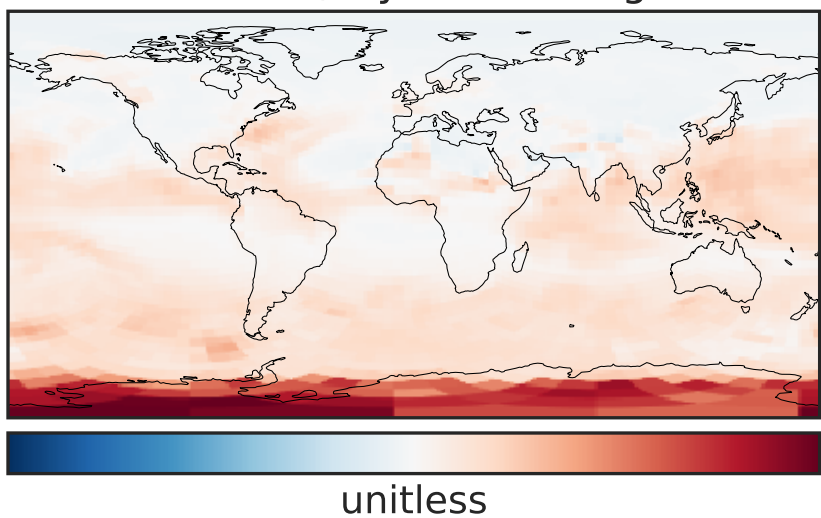
Difference (1x1.25)
Dev - Ref, Dynamic Range



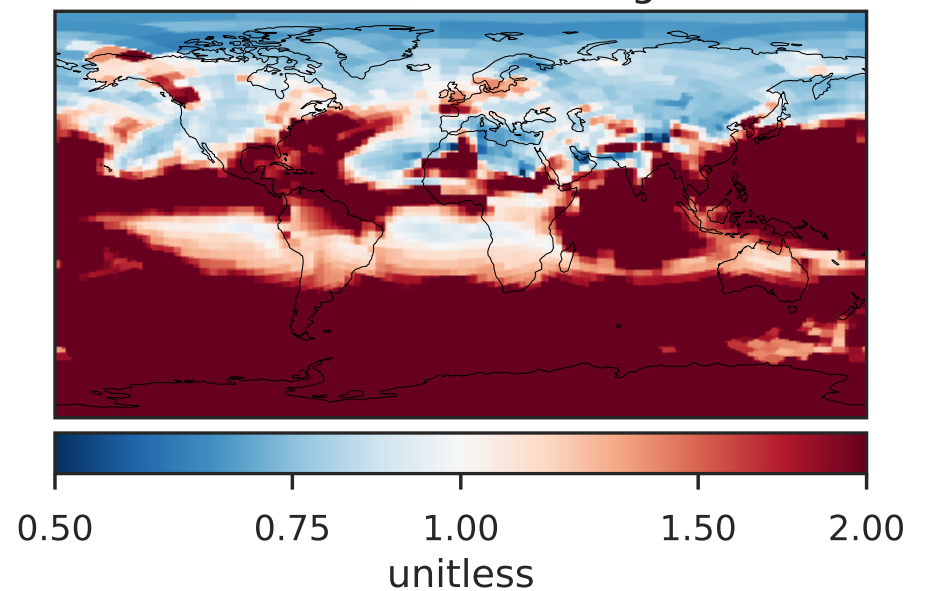
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

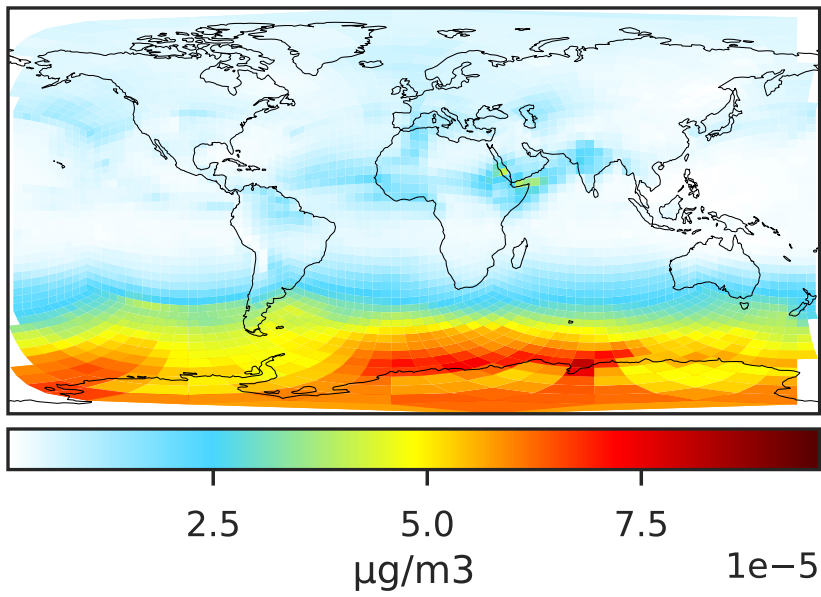


Ratio (1x1.25)
Dev/Ref, Fixed Range

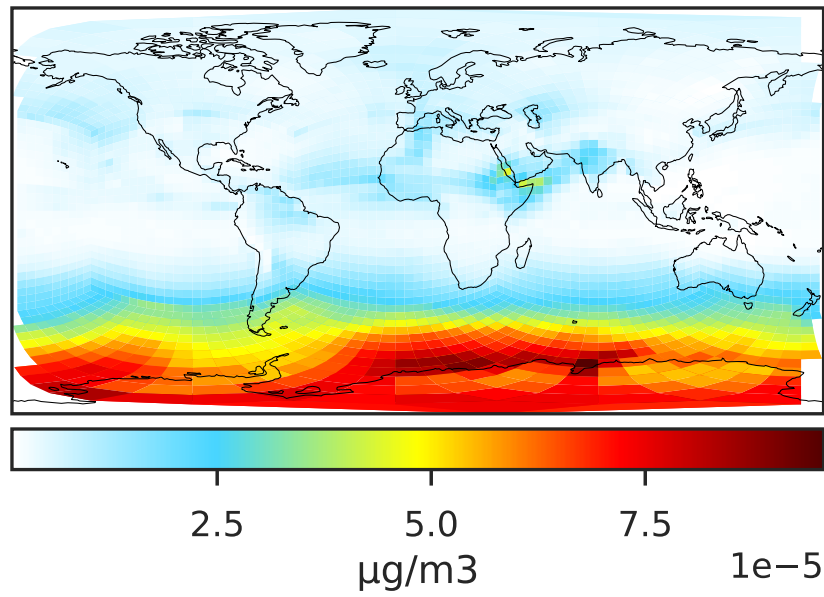


SpeciesConcVV_ISALA (Jul2019)

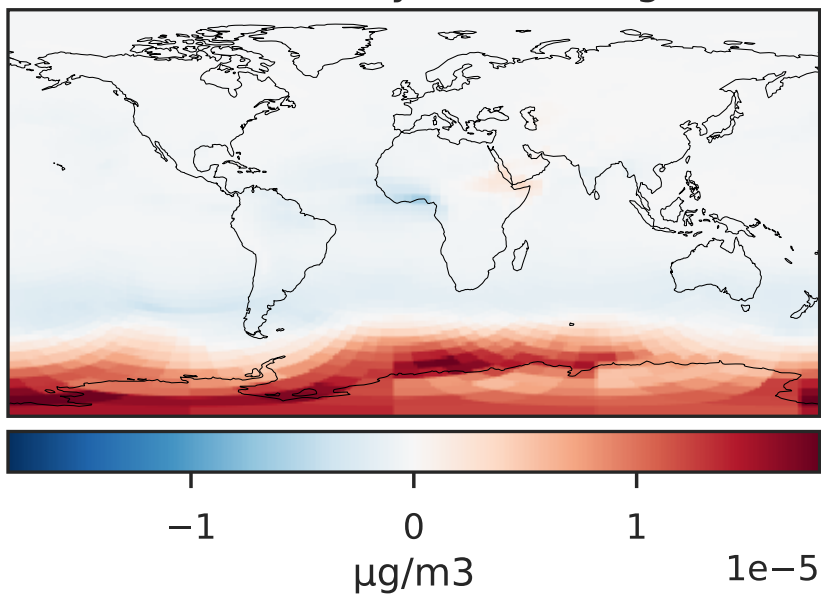
GCHP_14.0.0 (Ref)
c24



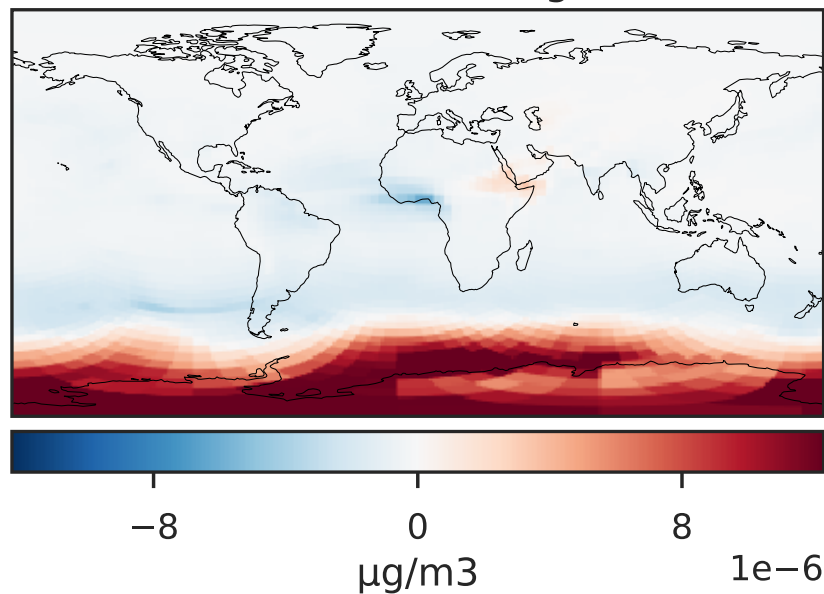
GCHP_14.2.0 (Dev)
c24



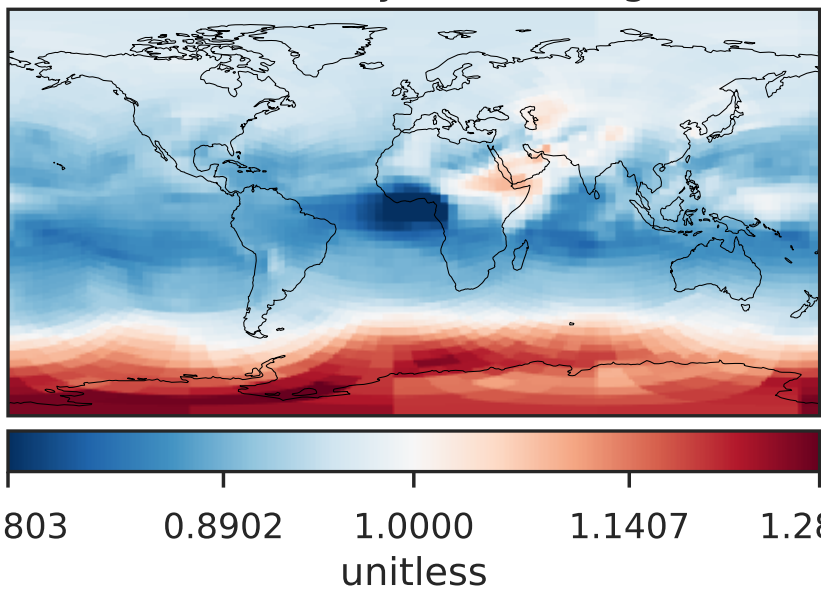
Difference (1x1.25)
Dev - Ref, Dynamic Range



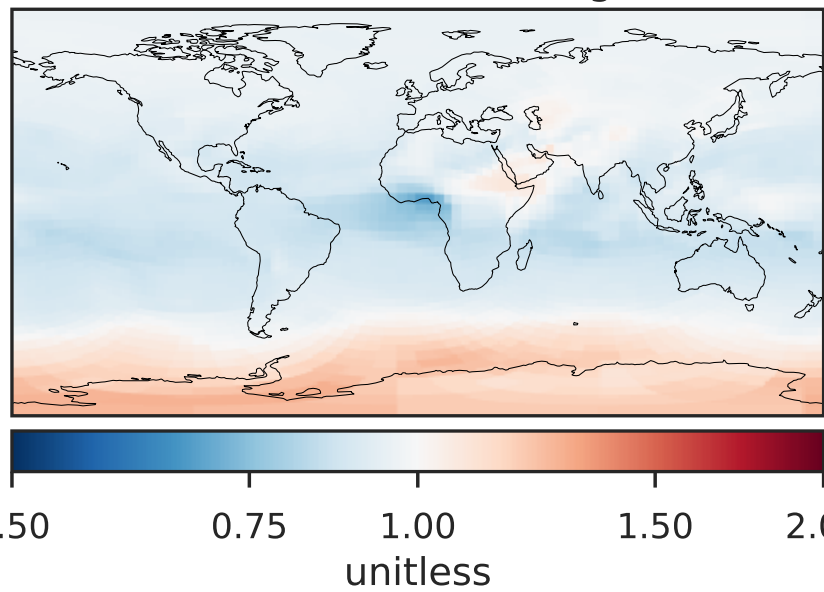
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

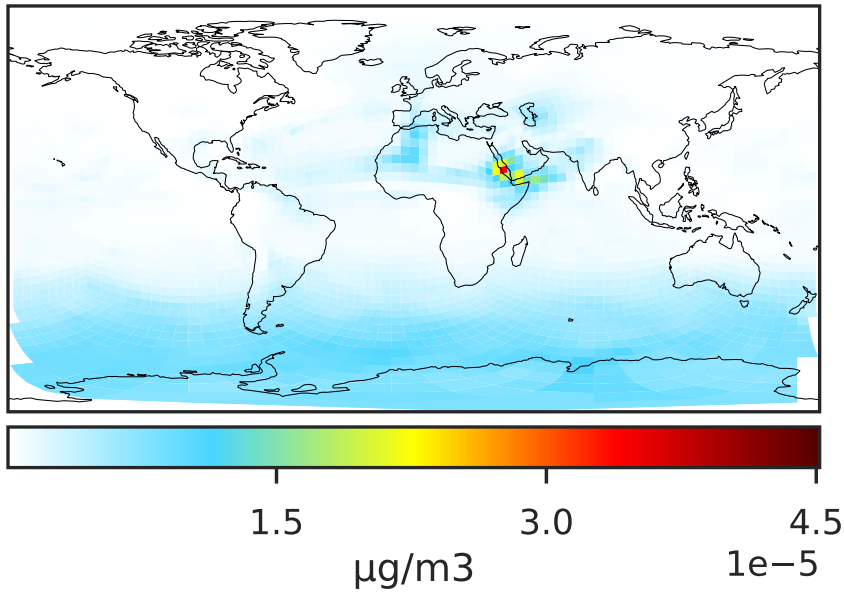


Ratio (1x1.25)
Dev/Ref, Fixed Range

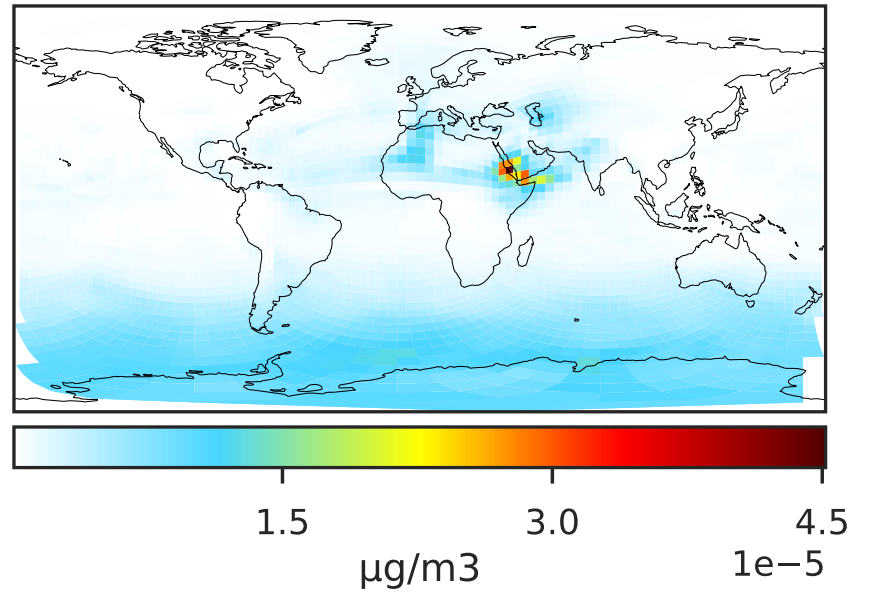


SpeciesConcVV_ISALC (Jul2019)

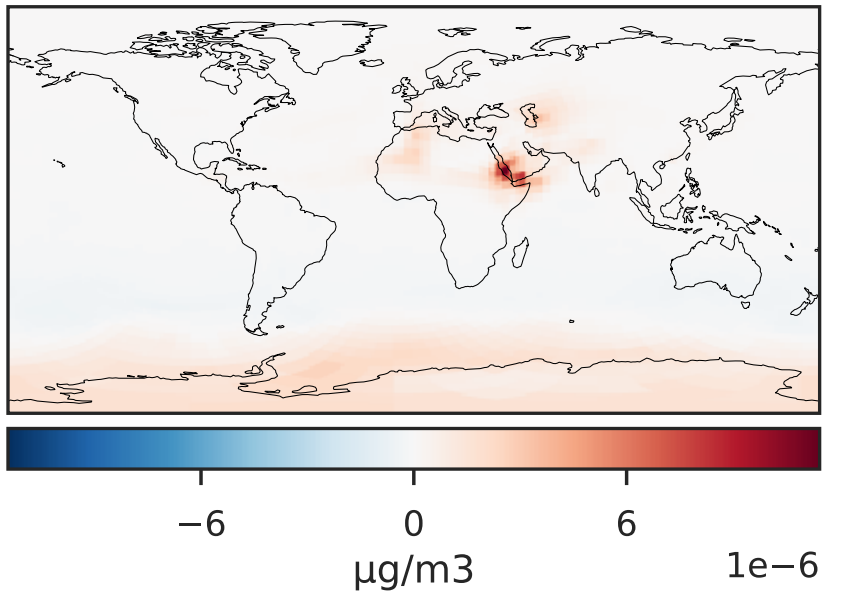
GCHP_14.0.0 (Ref)
c24



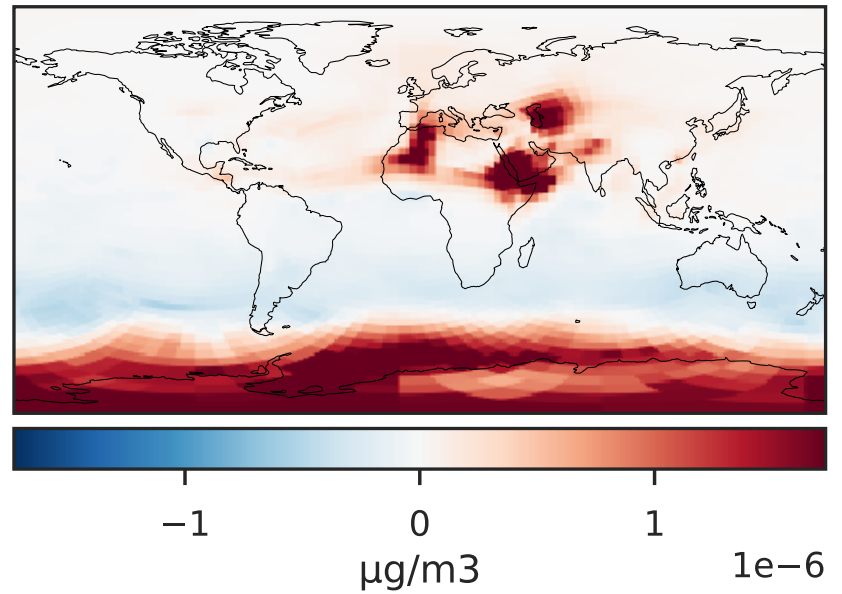
GCHP_14.2.0 (Dev)
c24



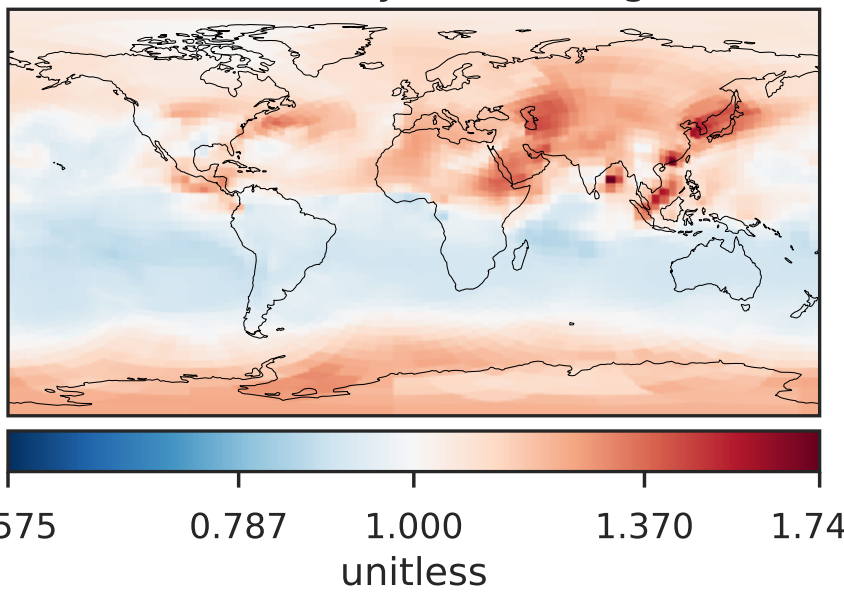
Difference (1x1.25)
Dev - Ref, Dynamic Range



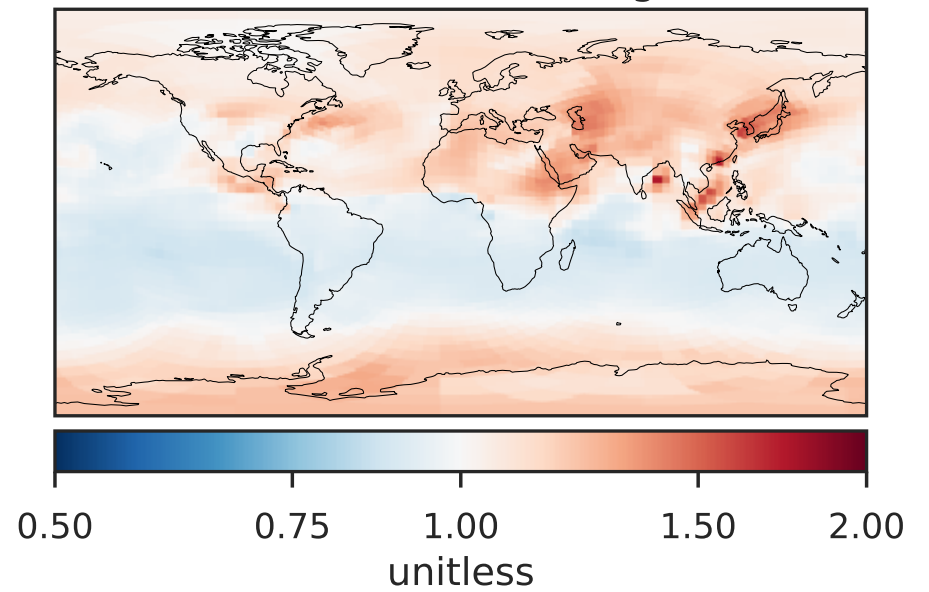
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

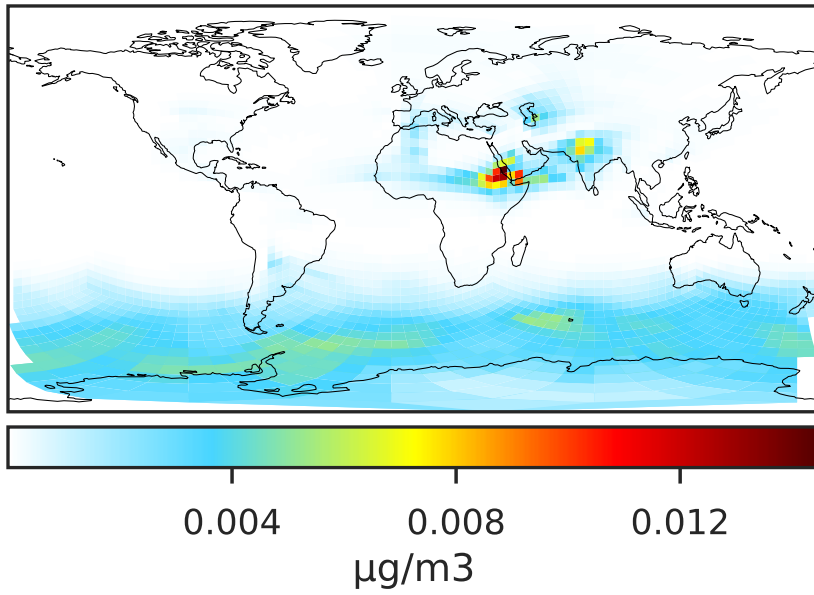


Ratio (1x1.25)
Dev/Ref, Fixed Range

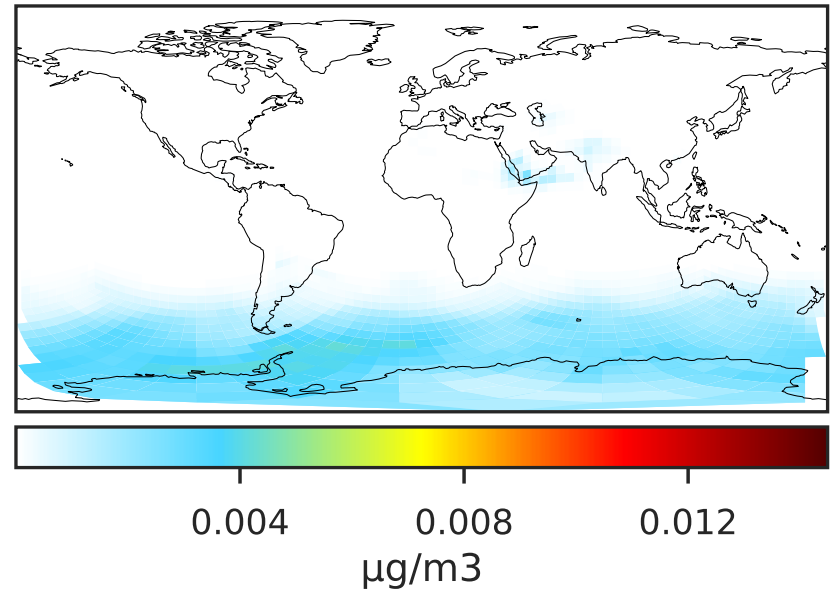


SpeciesConcVV_NITs (Jul2019)

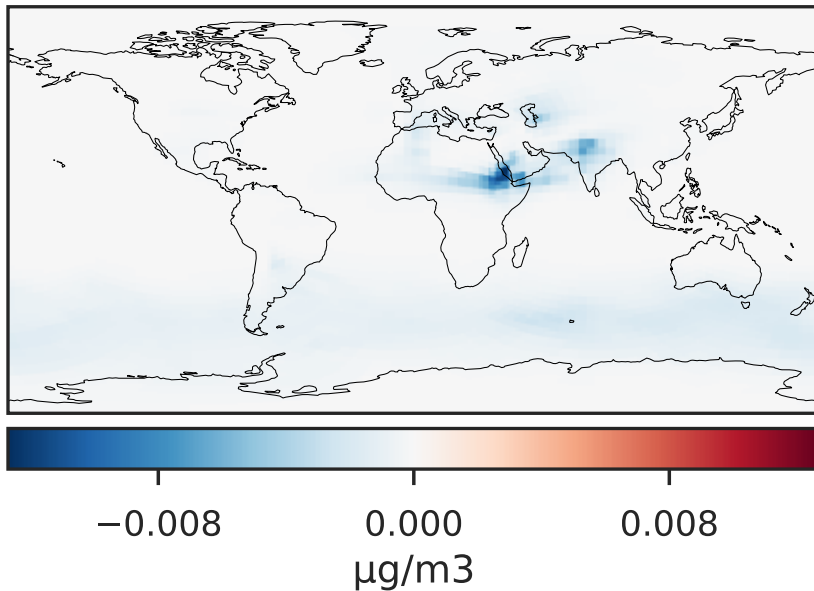
GCHP_14.0.0 (Ref)
c24



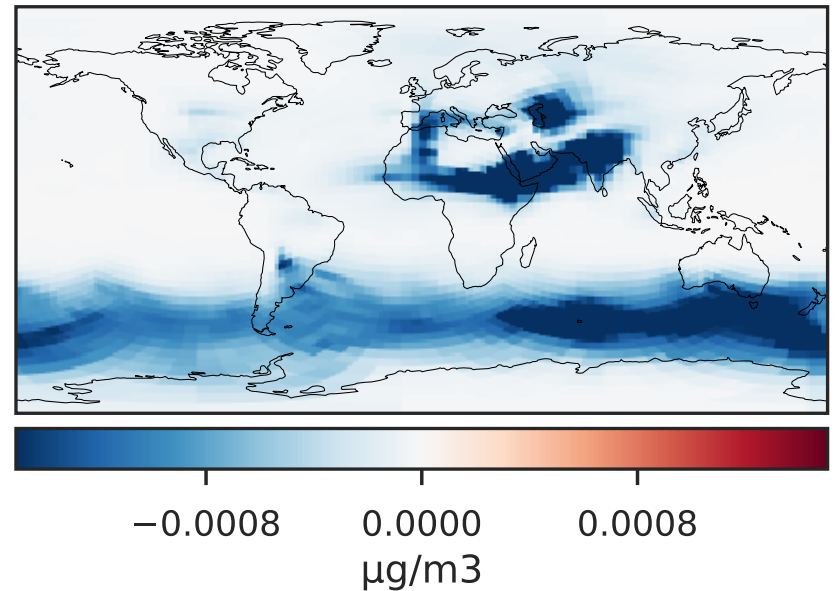
GCHP_14.2.0 (Dev)
c24



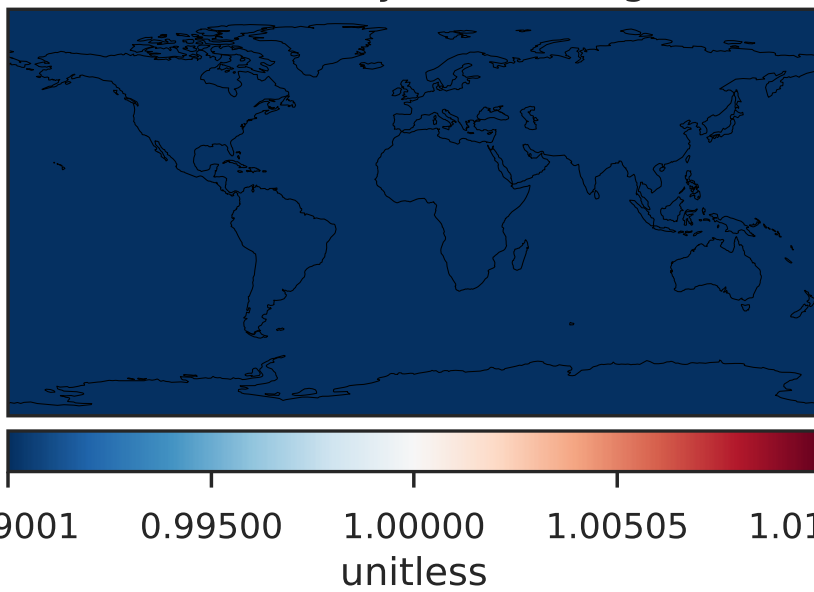
Difference (1x1.25)
Dev - Ref, Dynamic Range



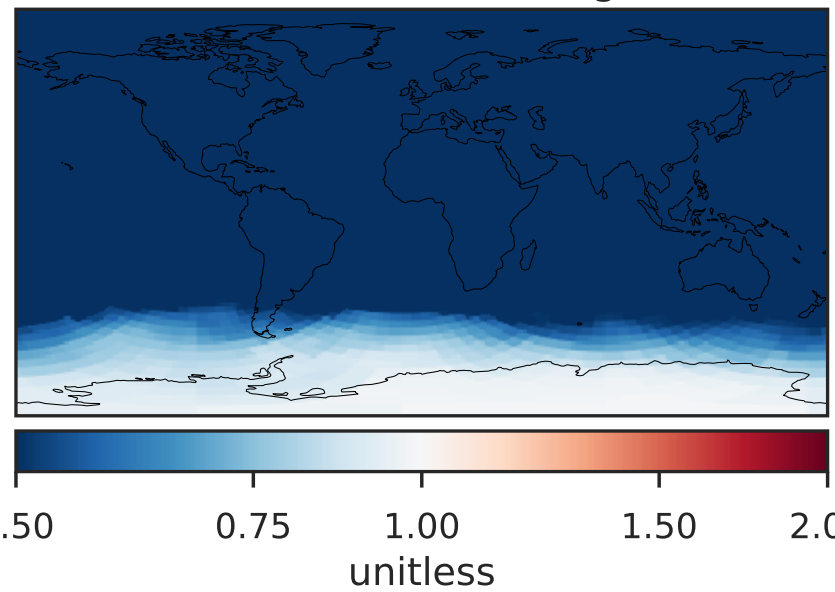
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

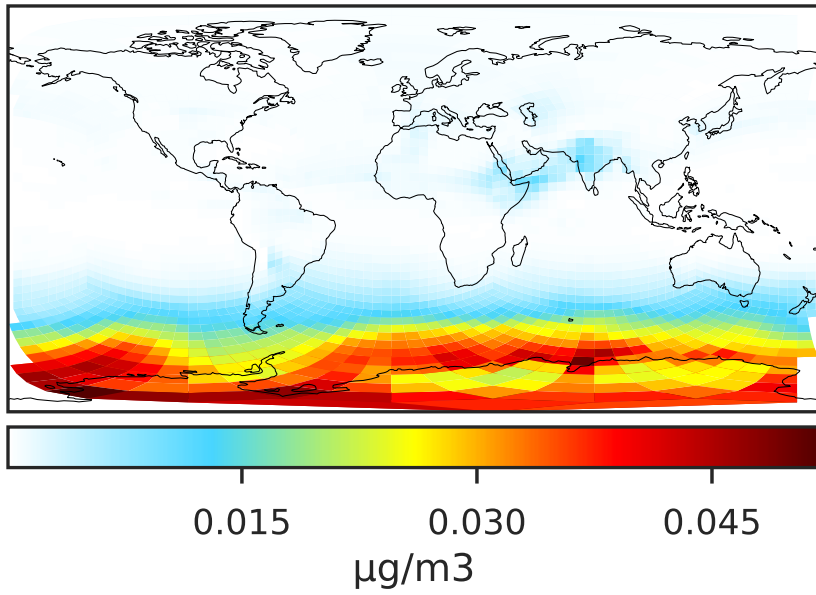


Ratio (1x1.25)
Dev/Ref, Fixed Range

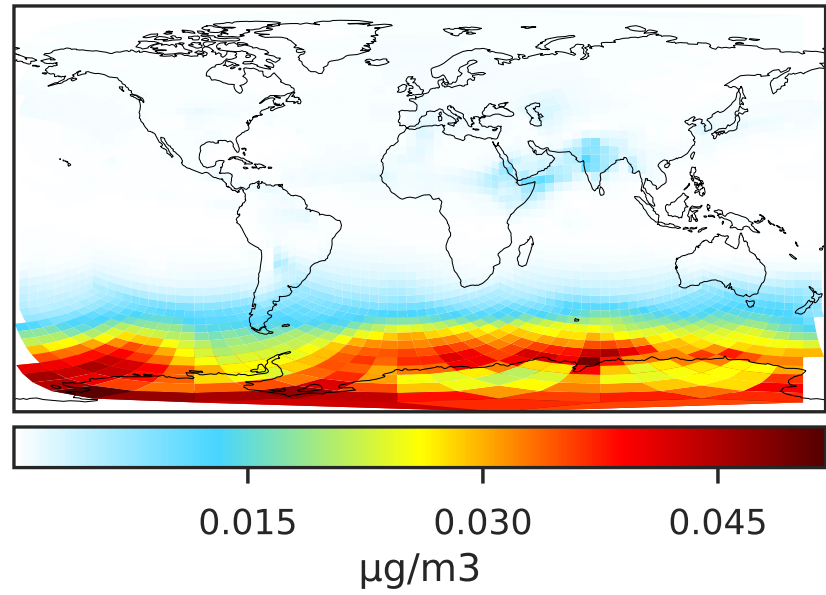


SpeciesConcVV_SALA (Jul2019)

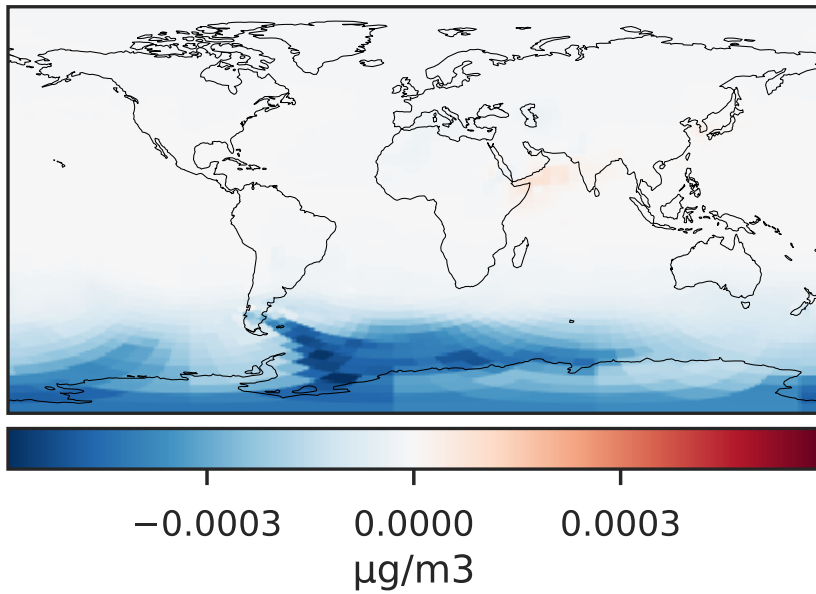
GCHP_14.0.0 (Ref)
c24



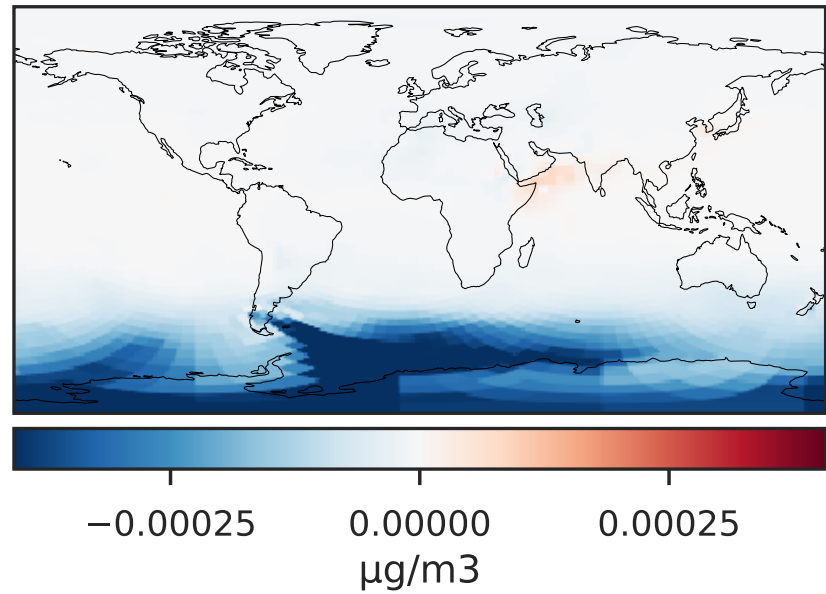
GCHP_14.2.0 (Dev)
c24



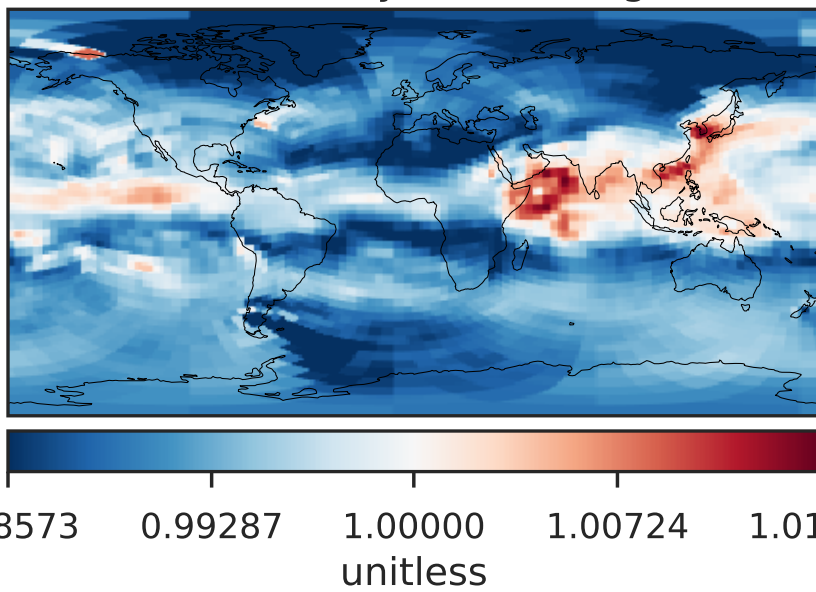
Difference (1x1.25)
Dev - Ref, Dynamic Range



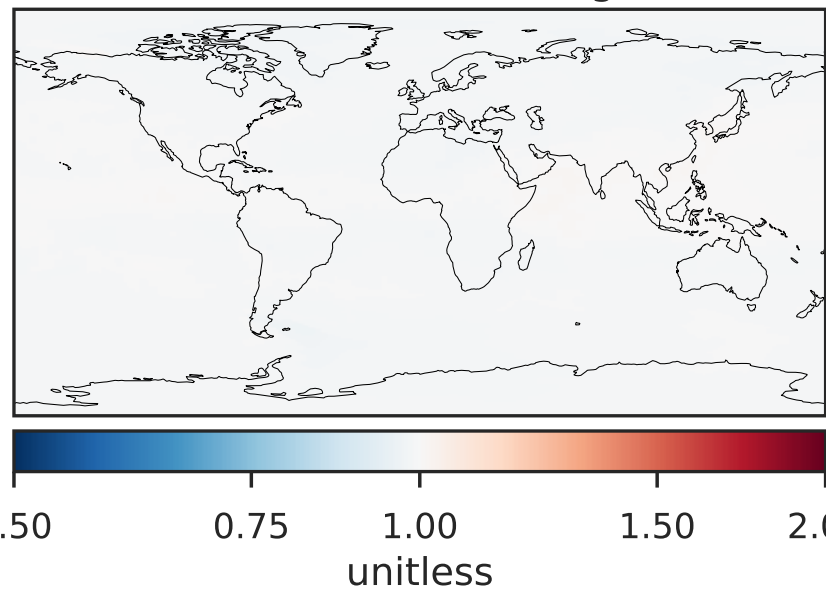
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

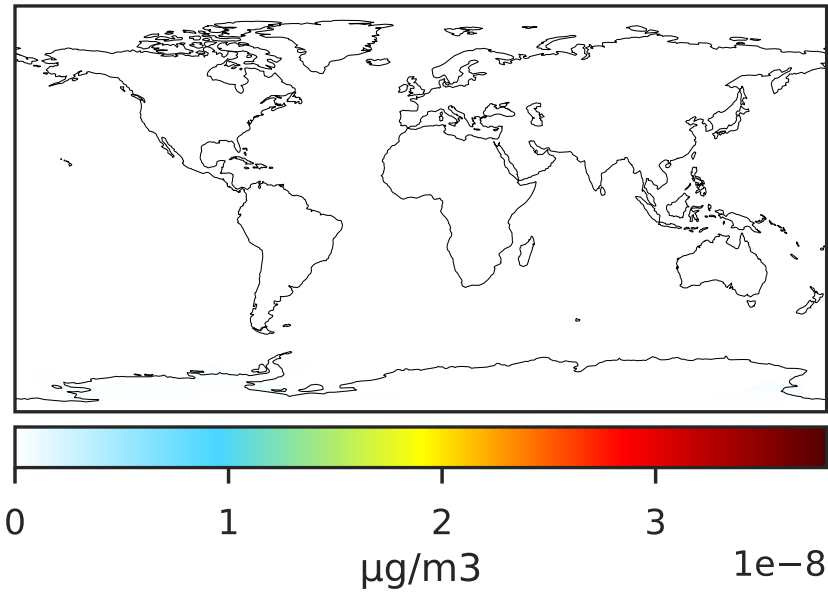


Ratio (1x1.25)
Dev/Ref, Fixed Range

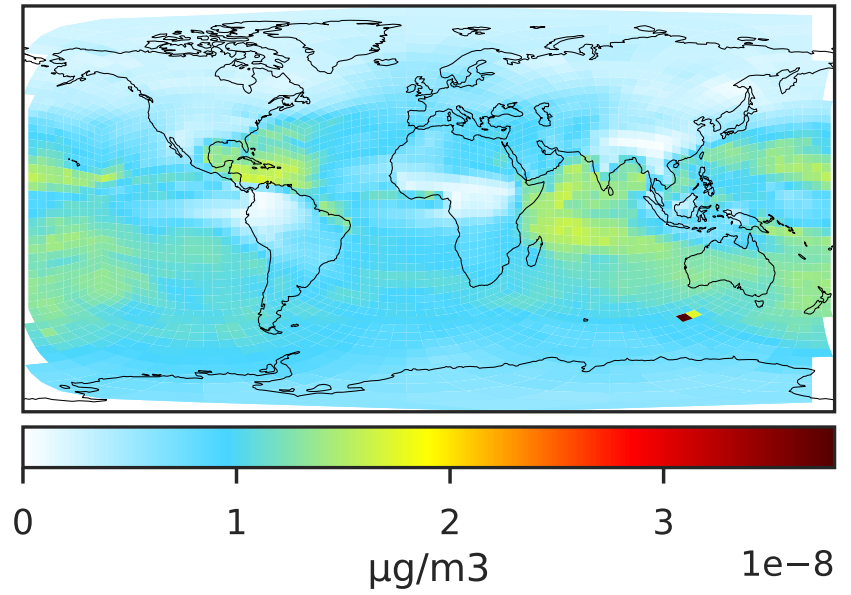


SpeciesConcVV_SALAAAL (Jul2019)

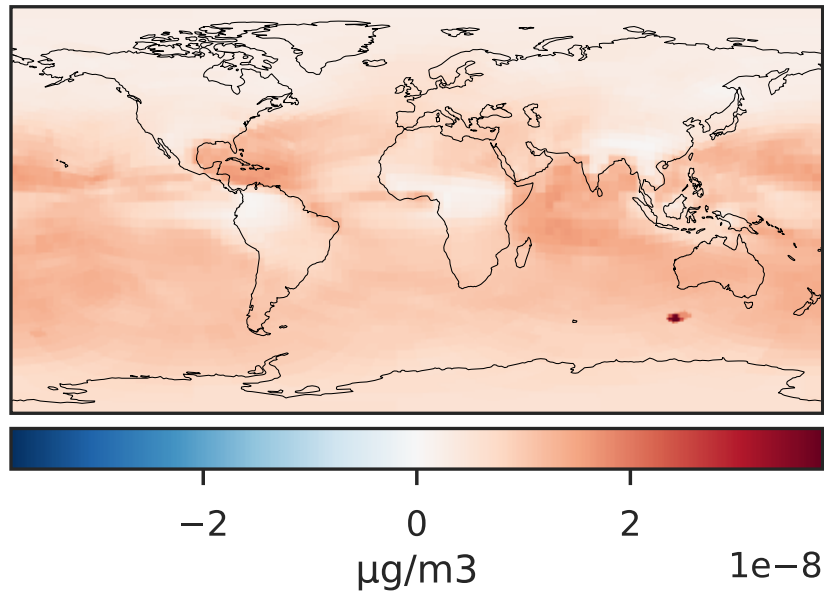
GCHP_14.0.0 (Ref)
c24



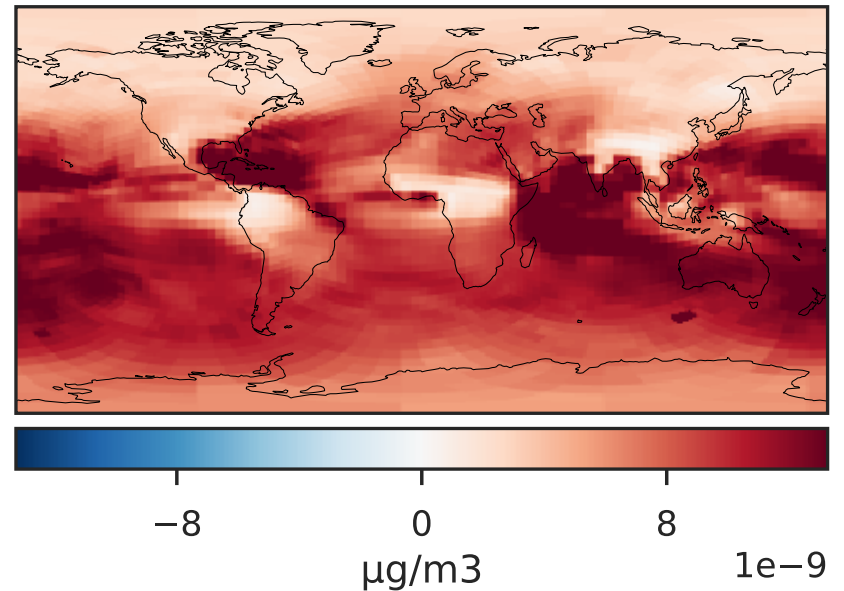
GCHP_14.2.0 (Dev)
c24



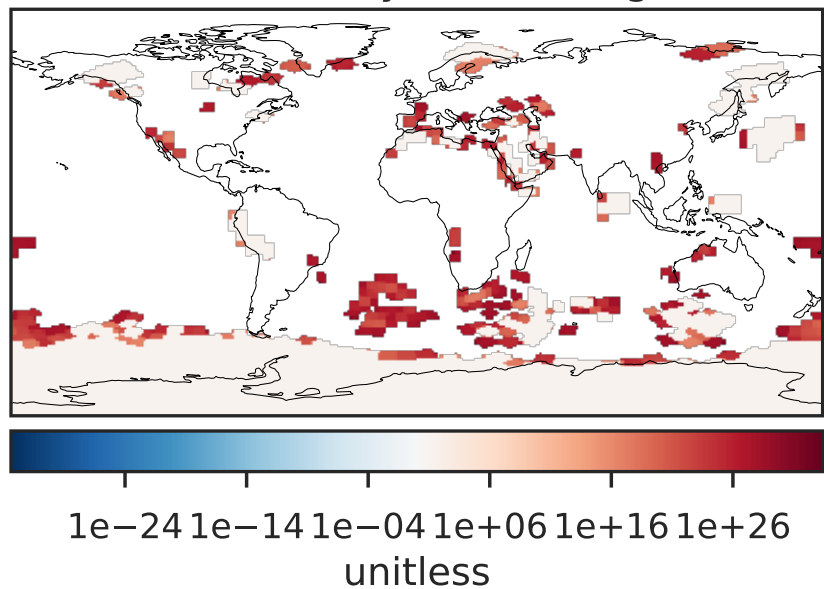
Difference (1x1.25)
Dev - Ref, Dynamic Range



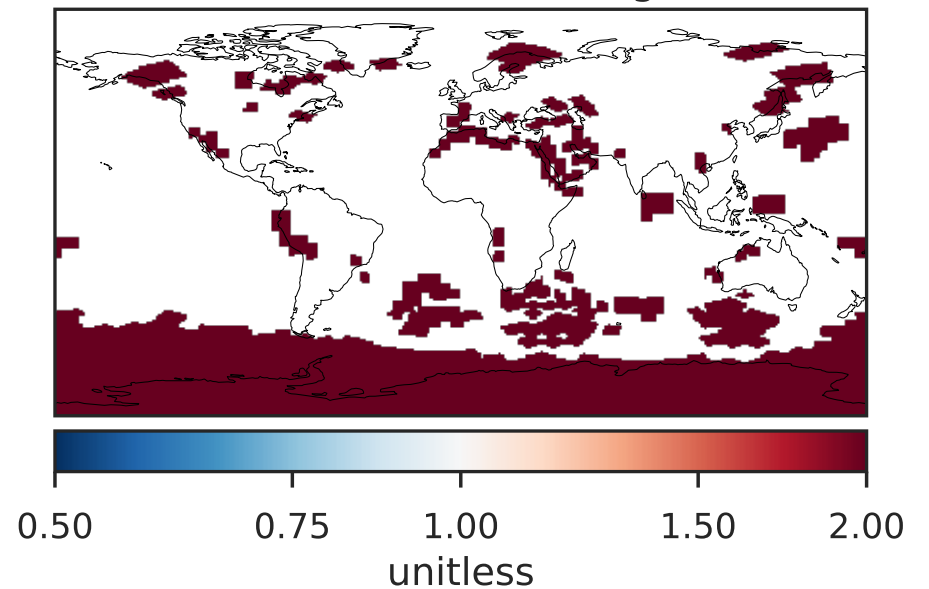
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

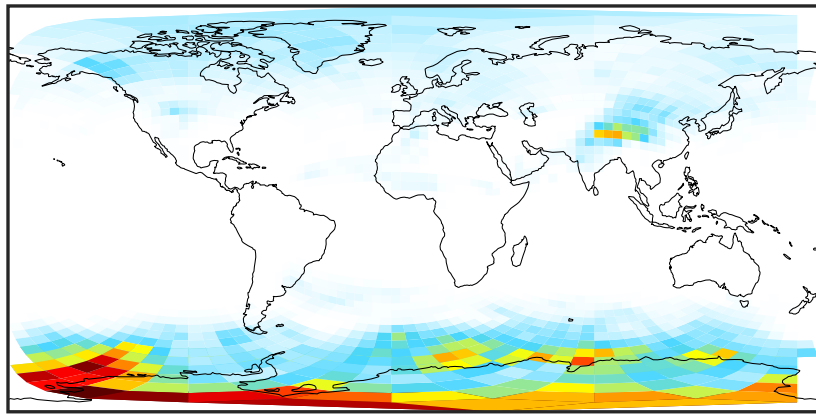


Ratio (1x1.25)
Dev/Ref, Fixed Range



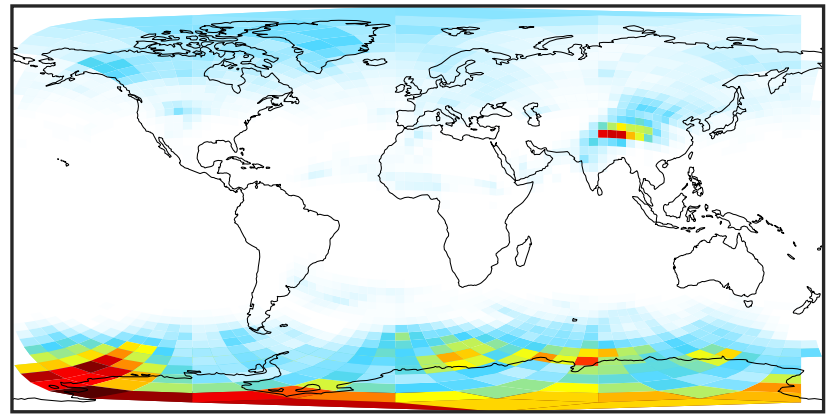
SpeciesConcVV_SALACL (Jul2019)

GCHP_14.0.0 (Ref)
c24



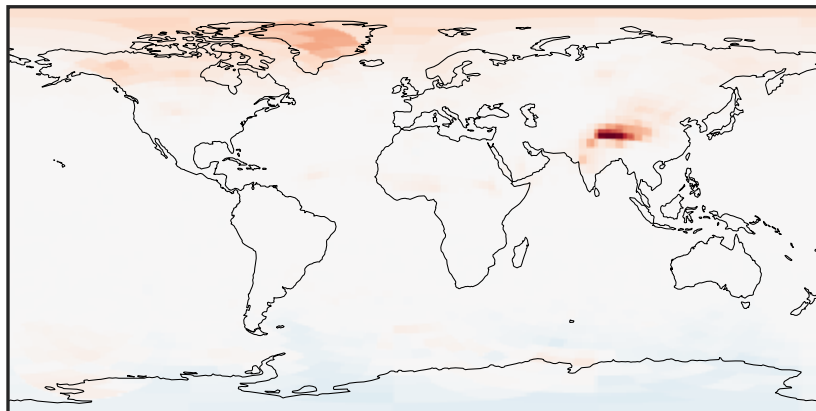
0.0000 0.0025 0.0050 0.0075
µg/m3

GCHP_14.2.0 (Dev)
c24



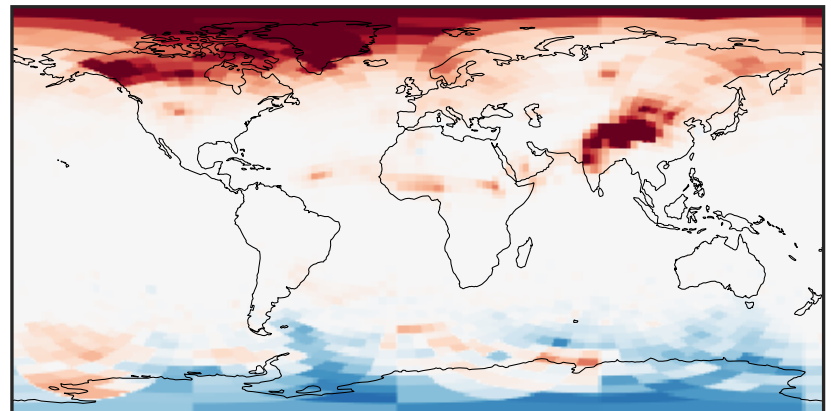
0.0000 0.0025 0.0050 0.0075
µg/m3

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



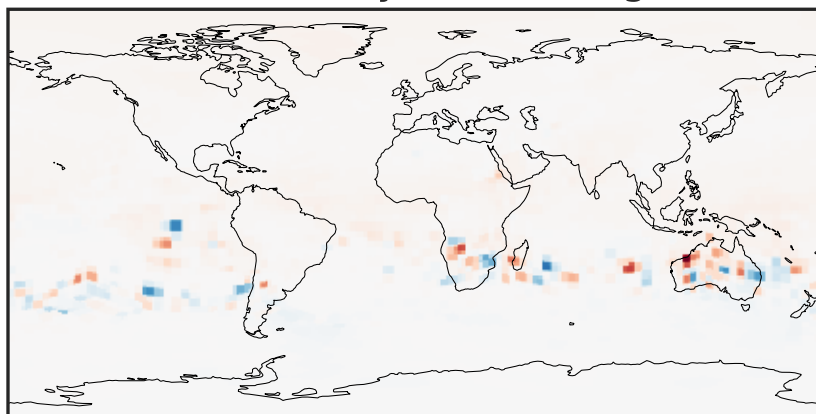
-0.0015 0.0000 0.0015
µg/m3

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



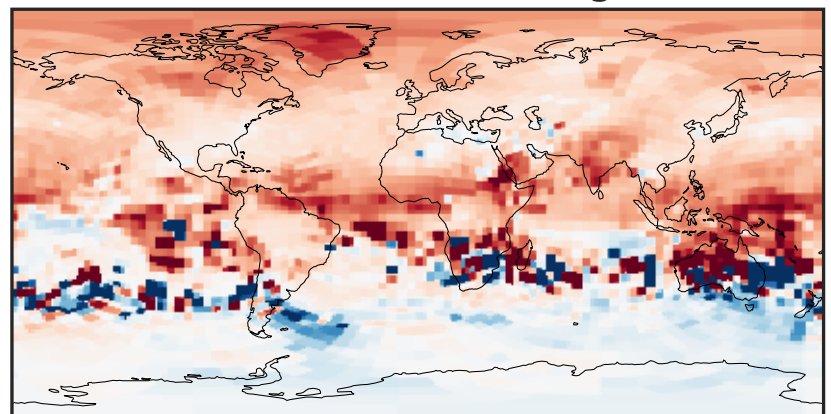
-0.0002 0.0000 0.0002
µg/m3

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



unitless

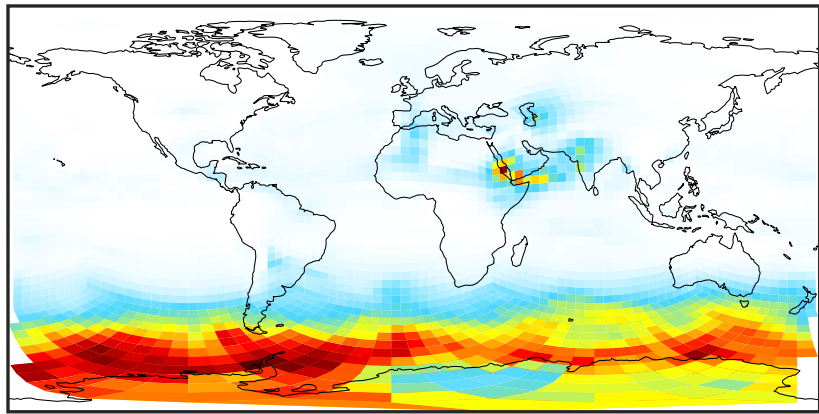
Ratio (1x1.25)
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless

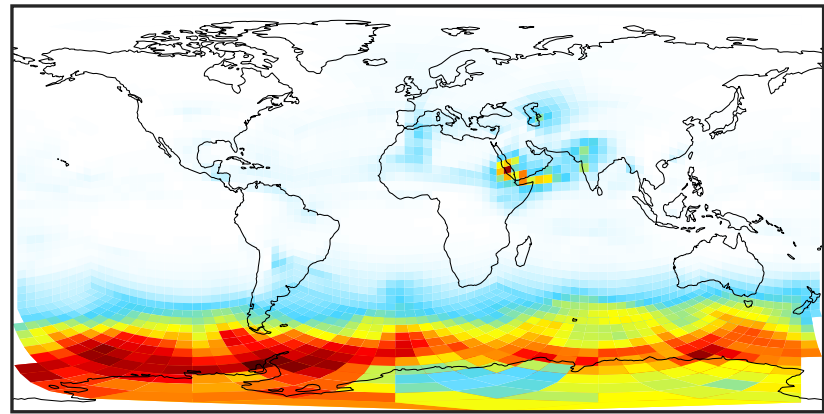
SpeciesConcVV_SALC (Jul2019)

GCHP_14.0.0 (Ref)
c24



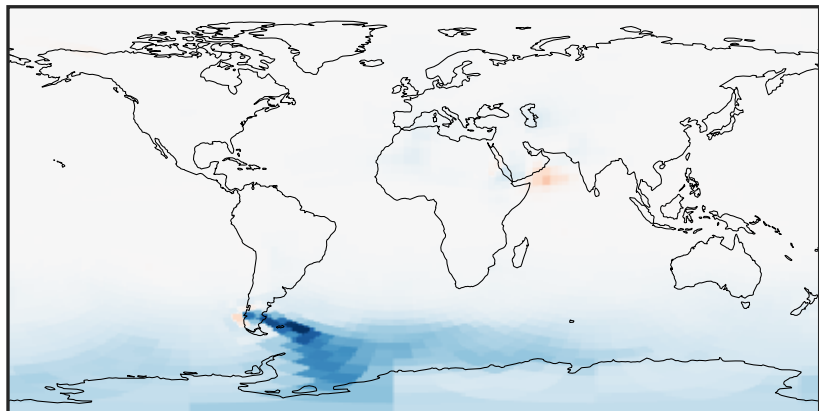
0.0001 0.0252 0.0504 0.0756 0.1009
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



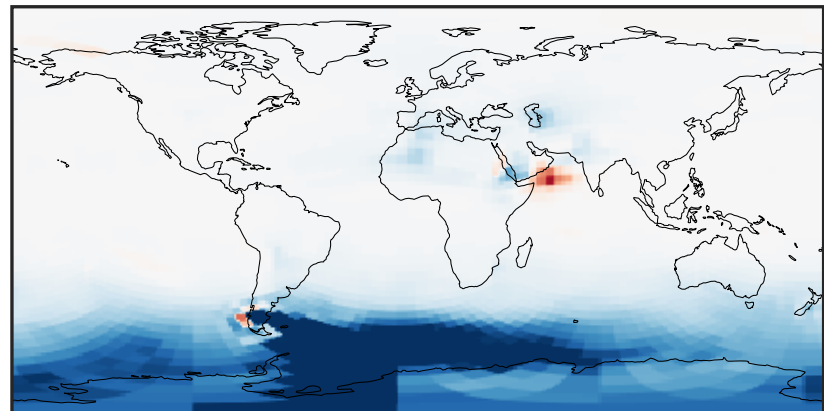
0.0001 0.0252 0.0504 0.0756 0.1009
 $\mu\text{g}/\text{m}^3$

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



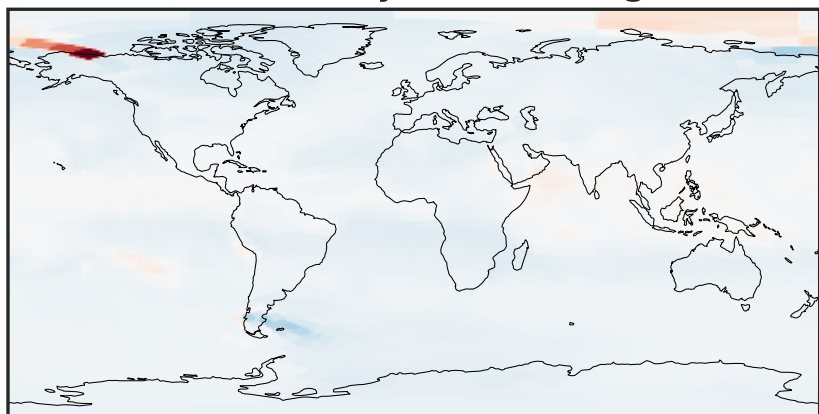
-0.0015 0.0000 0.0015
 $\mu\text{g}/\text{m}^3$

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



-0.0004 0.0000 0.0004
 $\mu\text{g}/\text{m}^3$

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



0.8438 0.9219 1.0000 1.0926 1.1852
unitless

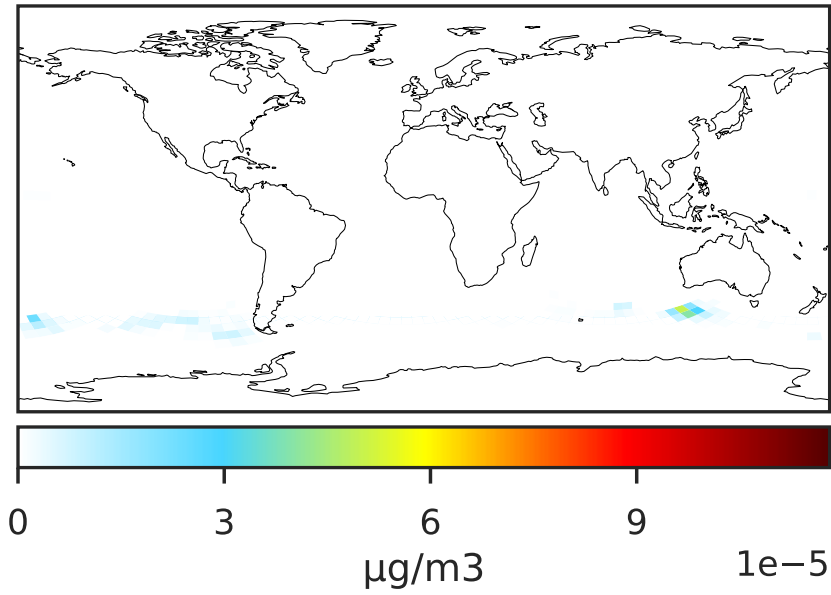
Ratio (1x1.25)
Dev/Ref, Fixed Range



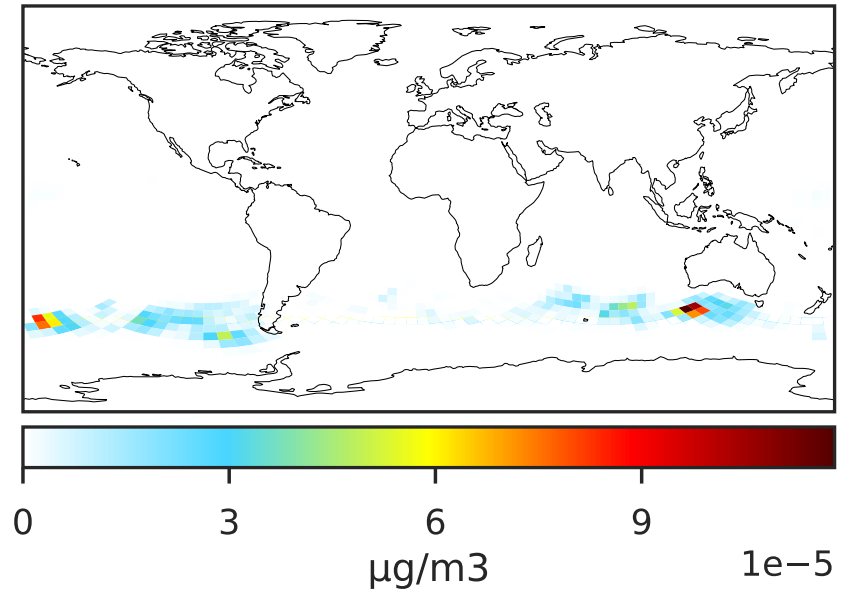
0.50 0.75 1.00 1.50 2.00
unitless

SpeciesConcVV_SALCAL (Jul2019)

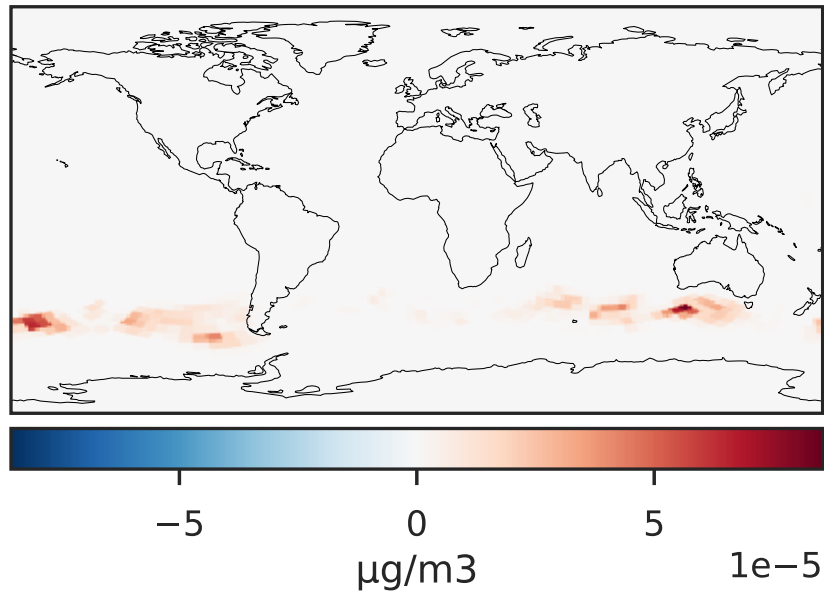
GCHP_14.0.0 (Ref)
c24



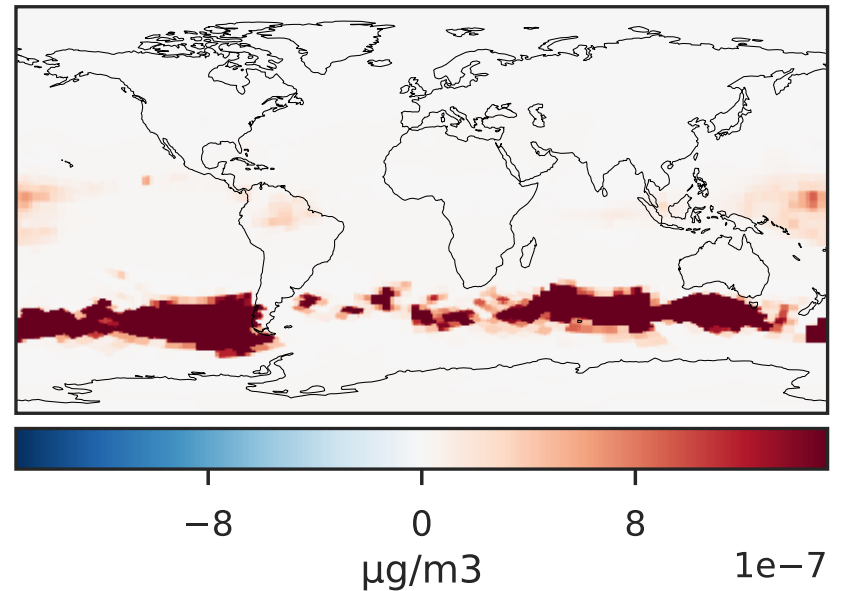
GCHP_14.2.0 (Dev)
c24



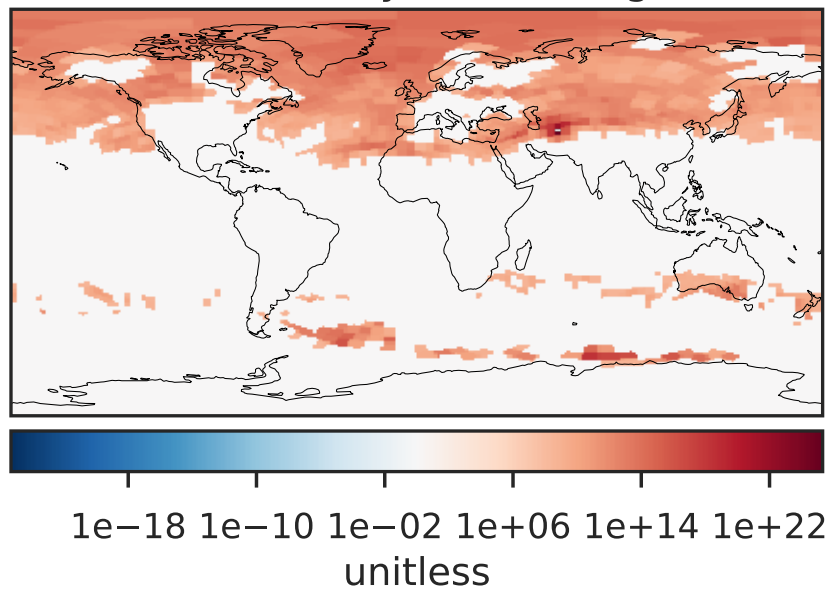
Difference (1x1.25)
Dev - Ref, Dynamic Range



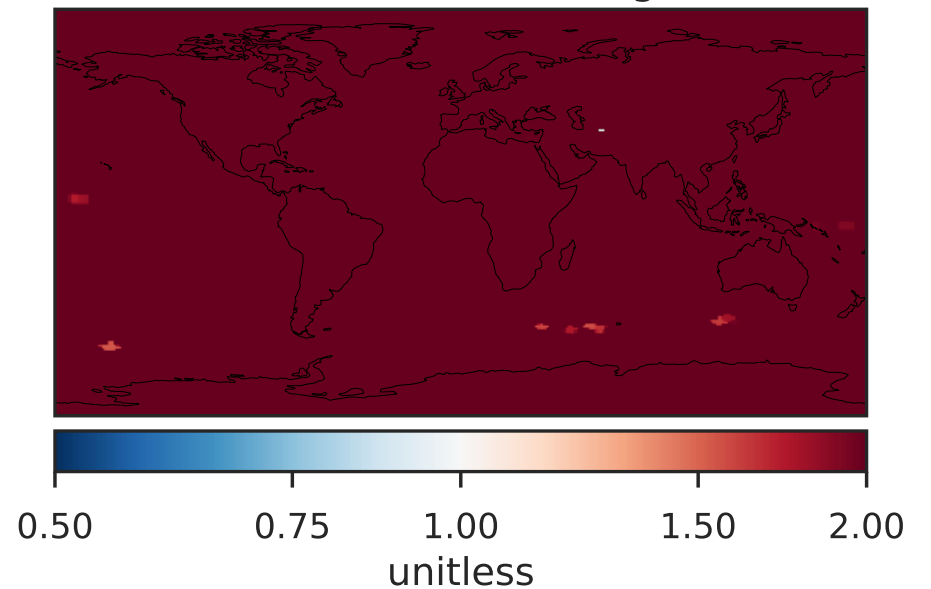
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

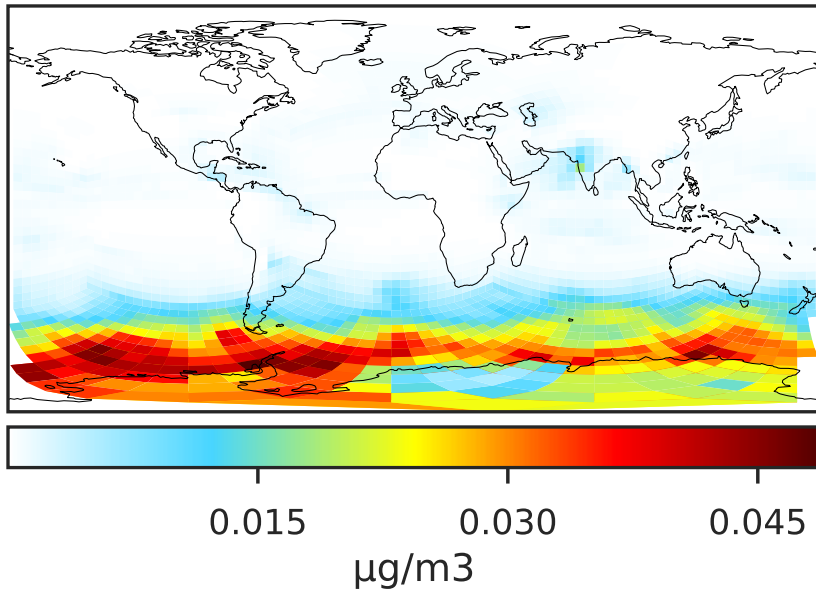


Ratio (1x1.25)
Dev/Ref, Fixed Range

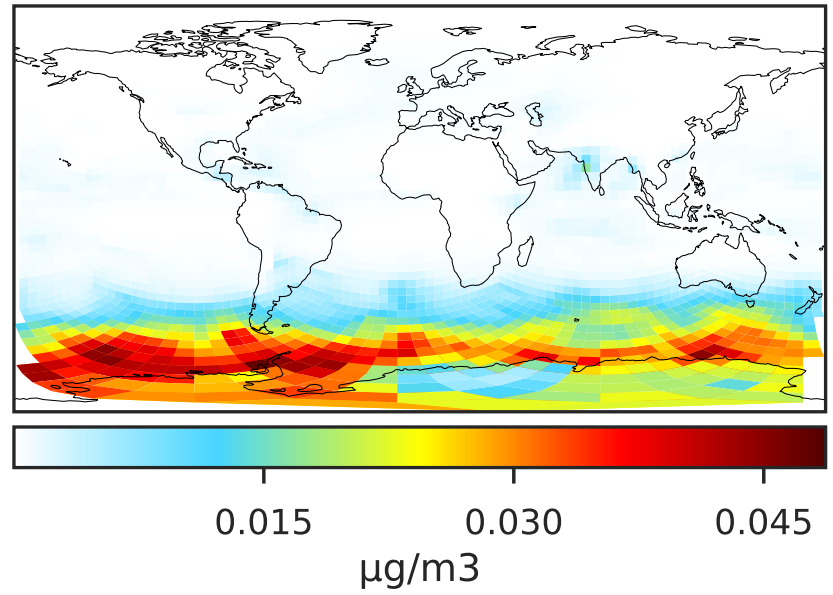


SpeciesConcVV_SALCCL (Jul2019)

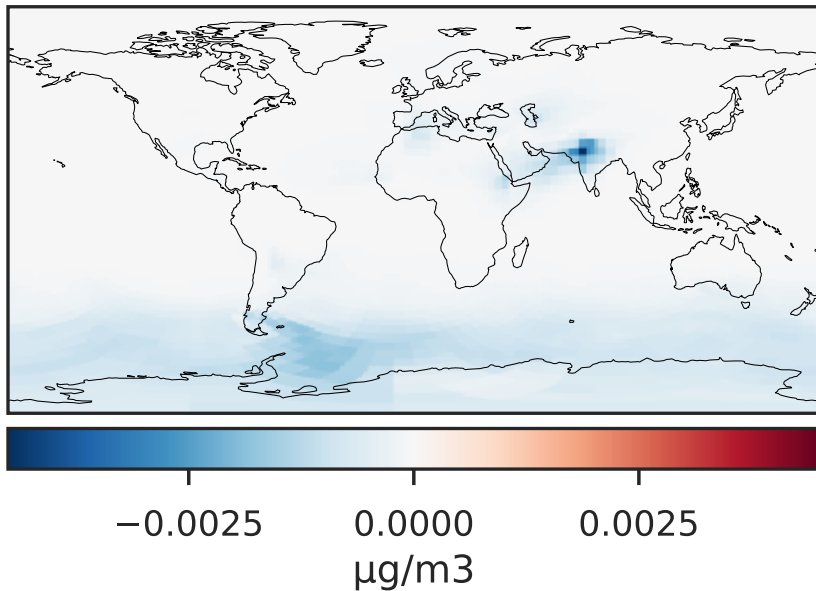
GCHP_14.0.0 (Ref)
c24



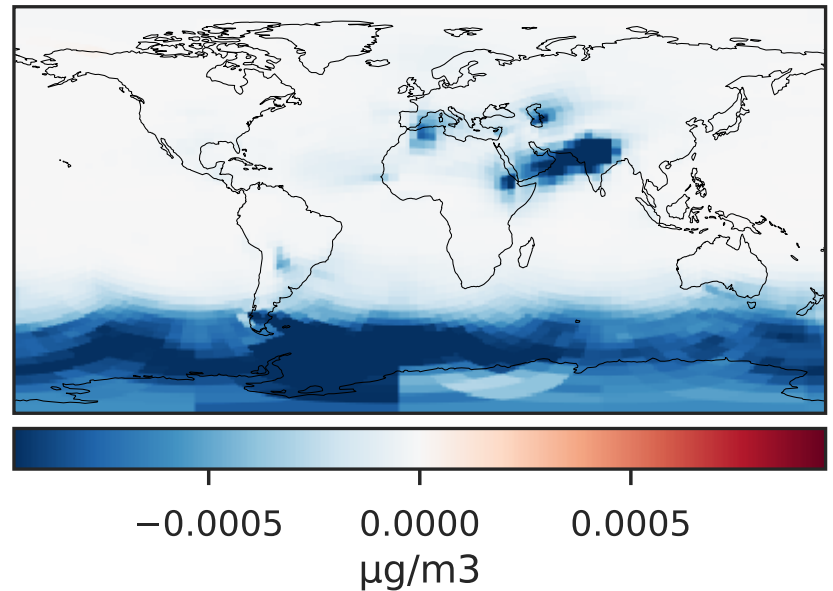
GCHP_14.2.0 (Dev)
c24



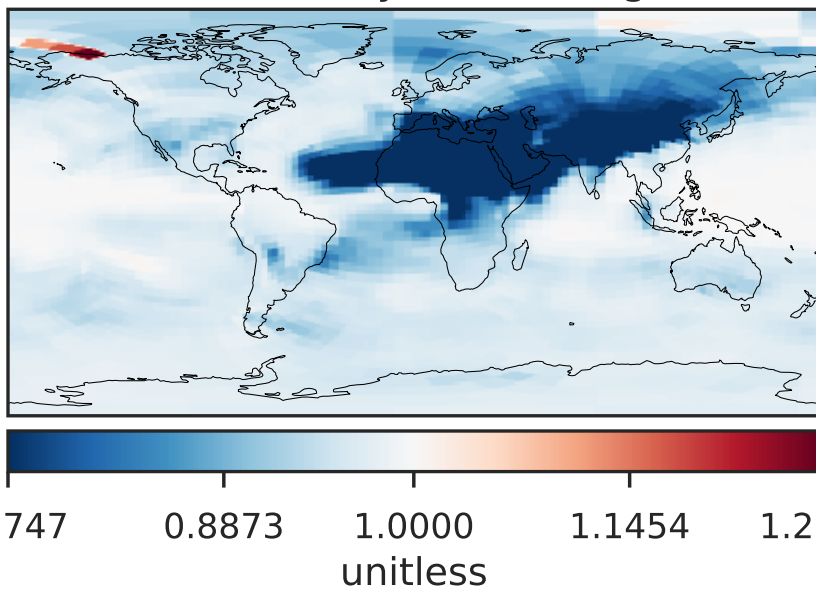
Difference (1x1.25)
Dev - Ref, Dynamic Range



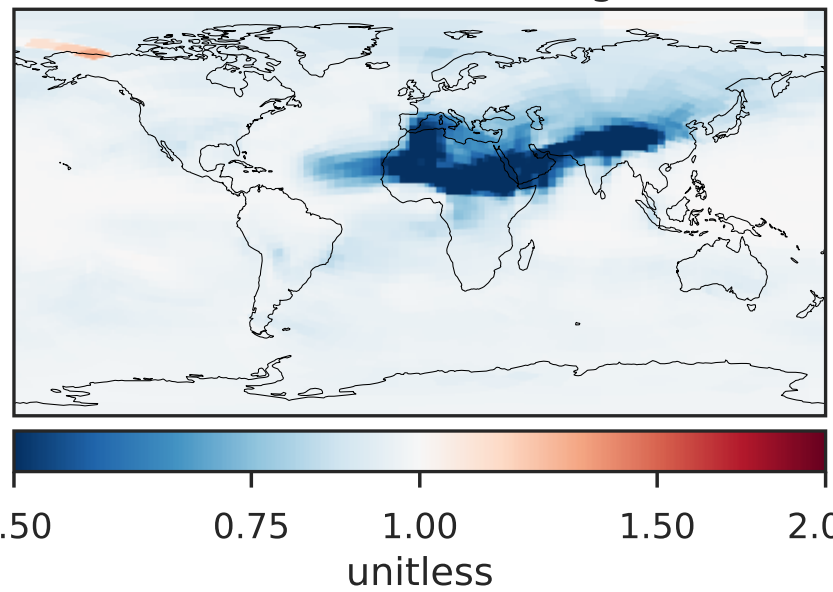
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

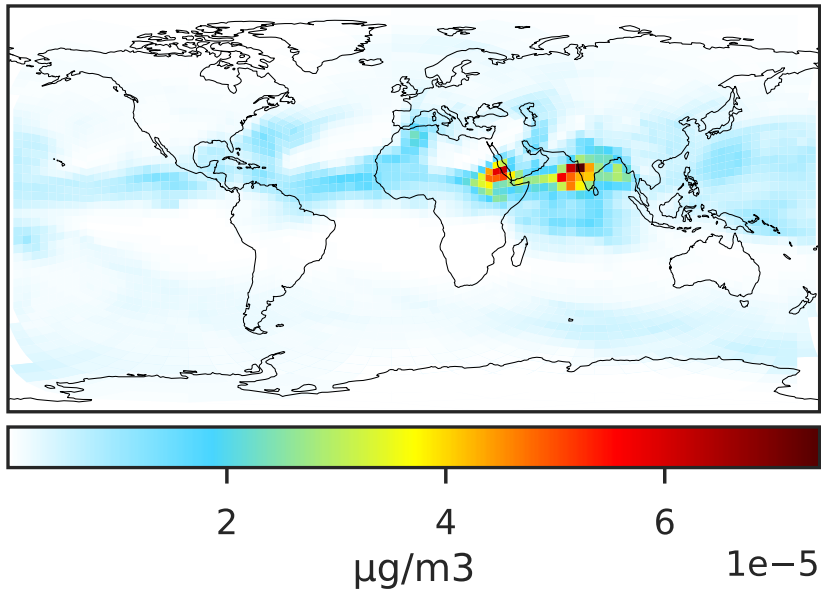


Ratio (1x1.25)
Dev/Ref, Fixed Range

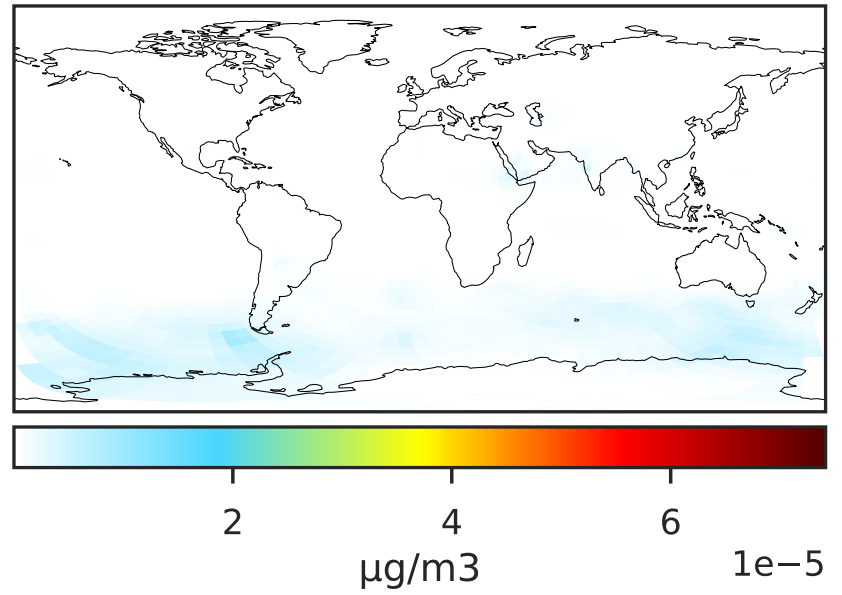


SpeciesConcVV_SO4s (Jul2019)

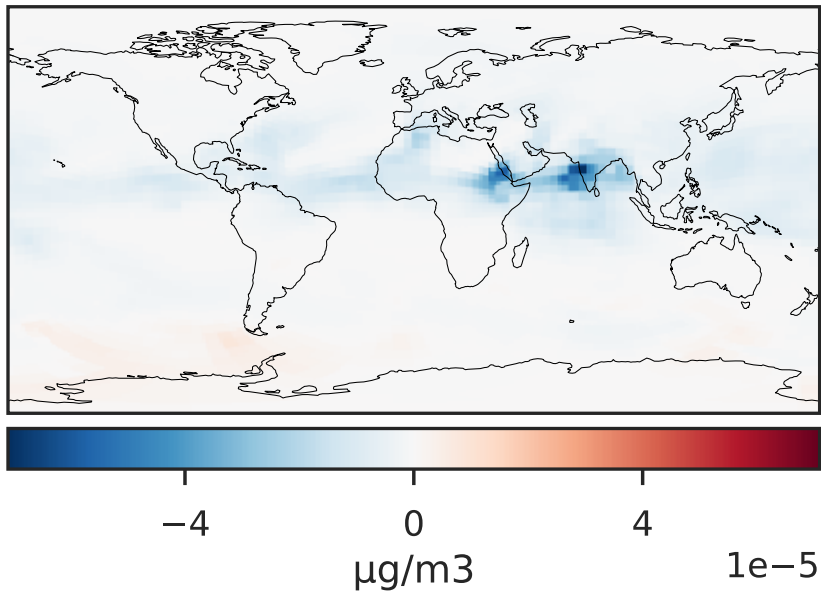
GCHP_14.0.0 (Ref)
c24



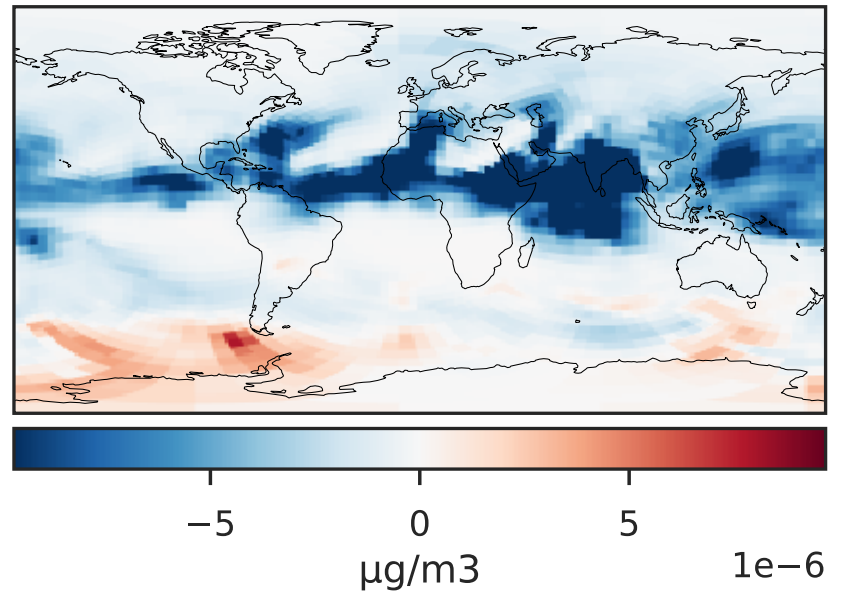
GCHP_14.2.0 (Dev)
c24



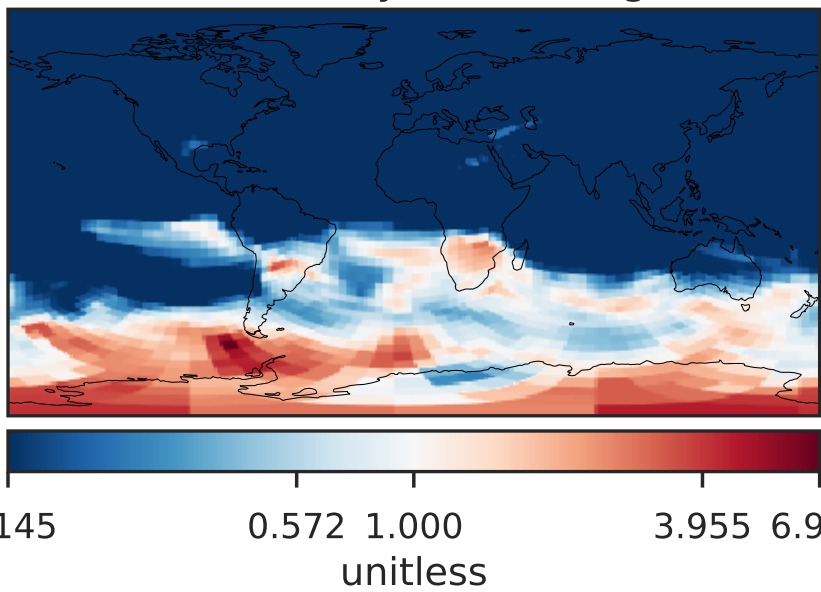
Difference (1x1.25)
Dev - Ref, Dynamic Range



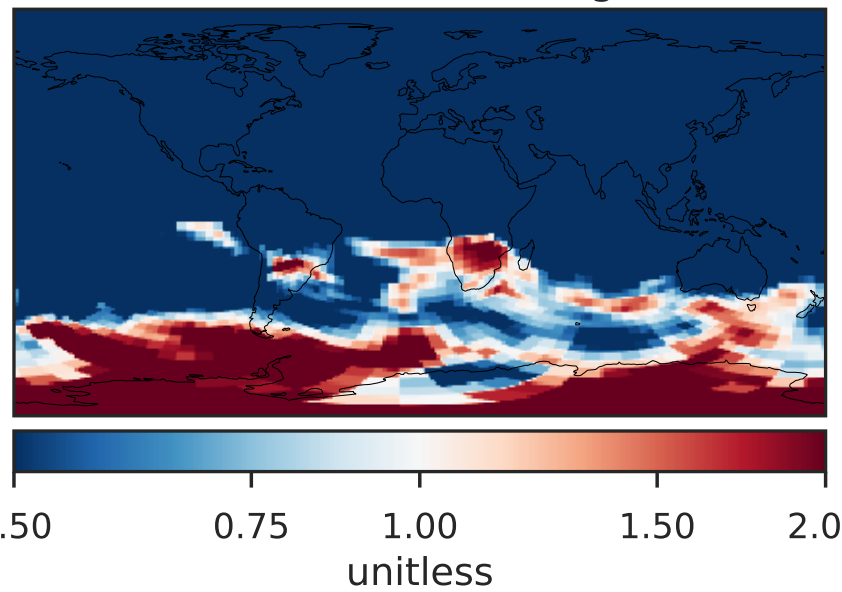
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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

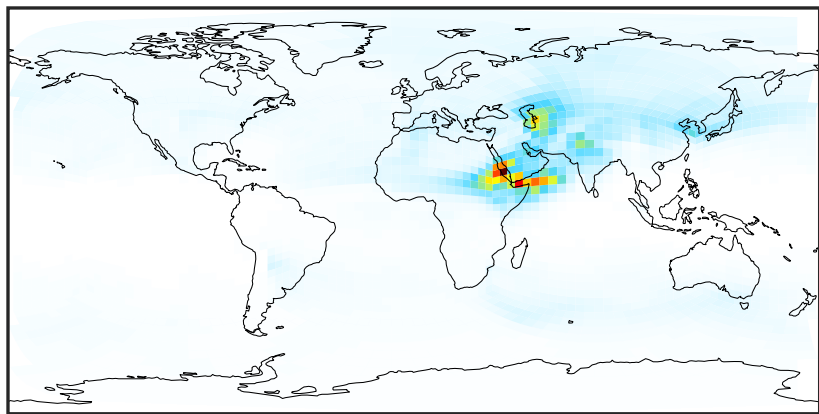


Ratio (1x1.25)
Dev/Ref, Fixed Range



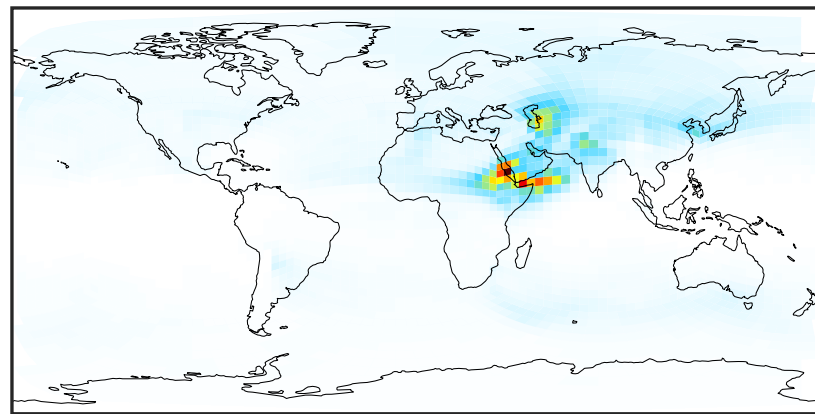
SpeciesConcVV_pFe (Jul2019)

GCHP_14.0.0 (Ref)
c24



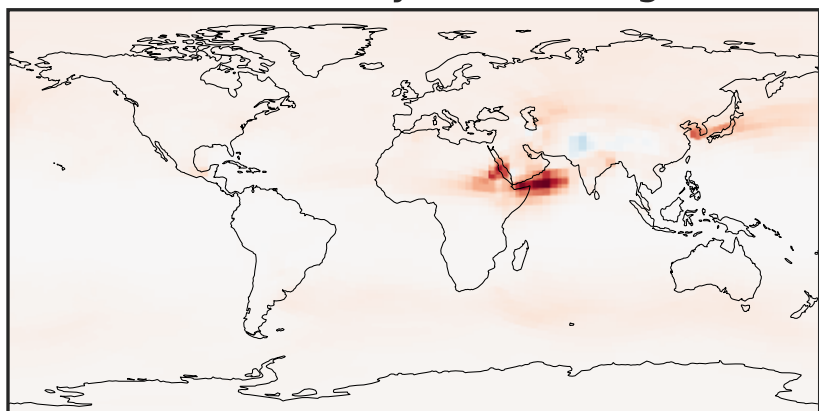
0.0003 0.0006 0.0009
 $\mu\text{g}/\text{m}^3$

GCHP_14.2.0 (Dev)
c24



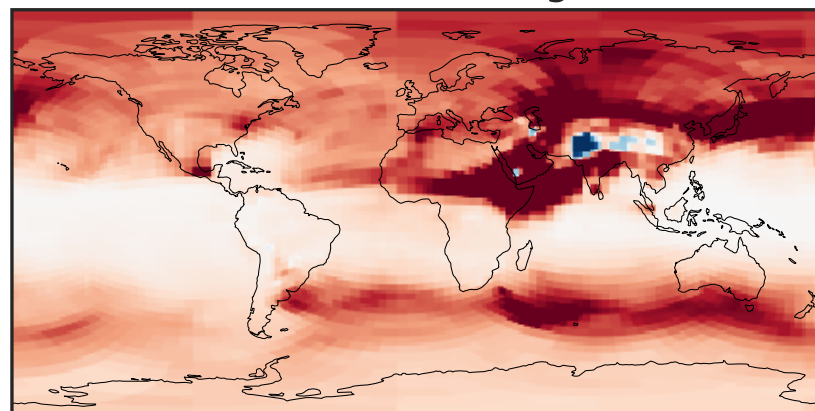
0.0003 0.0006 0.0009
 $\mu\text{g}/\text{m}^3$

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



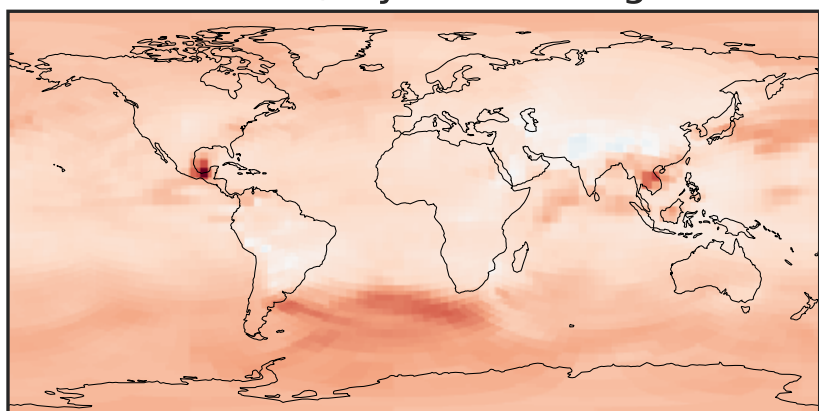
-6 0 6
 $\mu\text{g}/\text{m}^3$ $1\text{e}-6$

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



-6 0 6
 $\mu\text{g}/\text{m}^3$ $1\text{e}-7$

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



0.8994 0.9497 1.0000 1.0559 1.1118
unitless

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



0.50 0.75 1.00 1.50 2.00
unitless