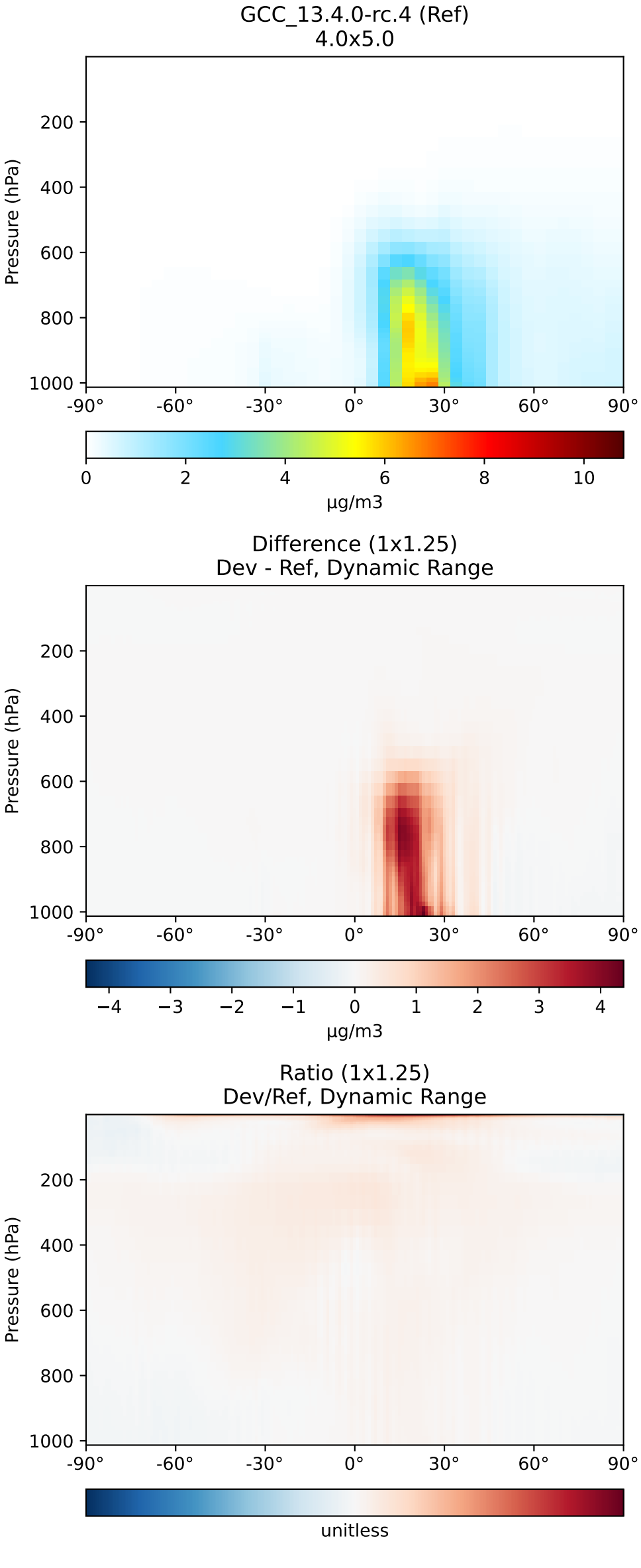
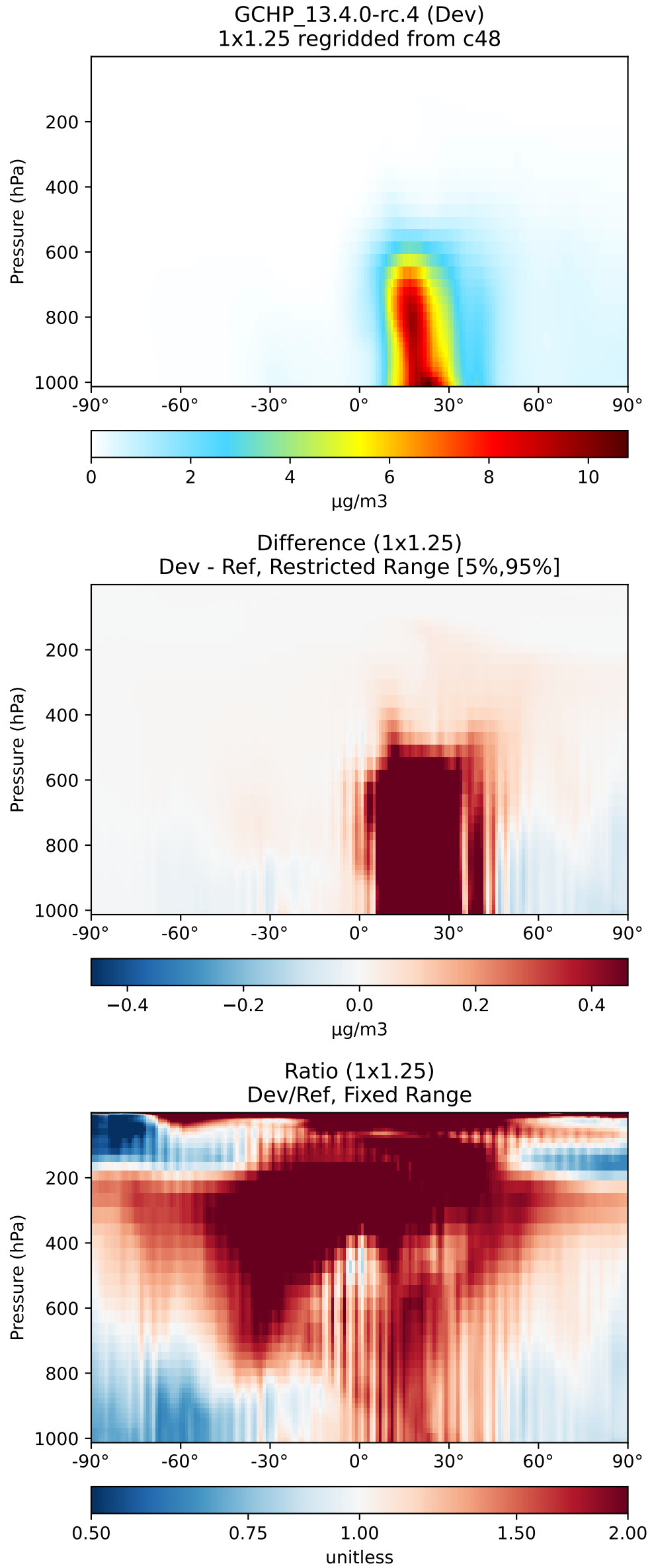
SpeciesConc_DST1, Zonal Mean





SpeciesConc_DST2, Zonal Mean

GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48

Pressure (hPa)

200 400 600 800 1000

-90° -60° -30° 0° 30° 60° 90°

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0

µg/m3

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

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

−7.5 −5.0 −2.5 0.0 2.5 5.0 7.5

−0.6 −0.4 −0.2 0.0 0.2 0.4 0.6

µg/m3

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

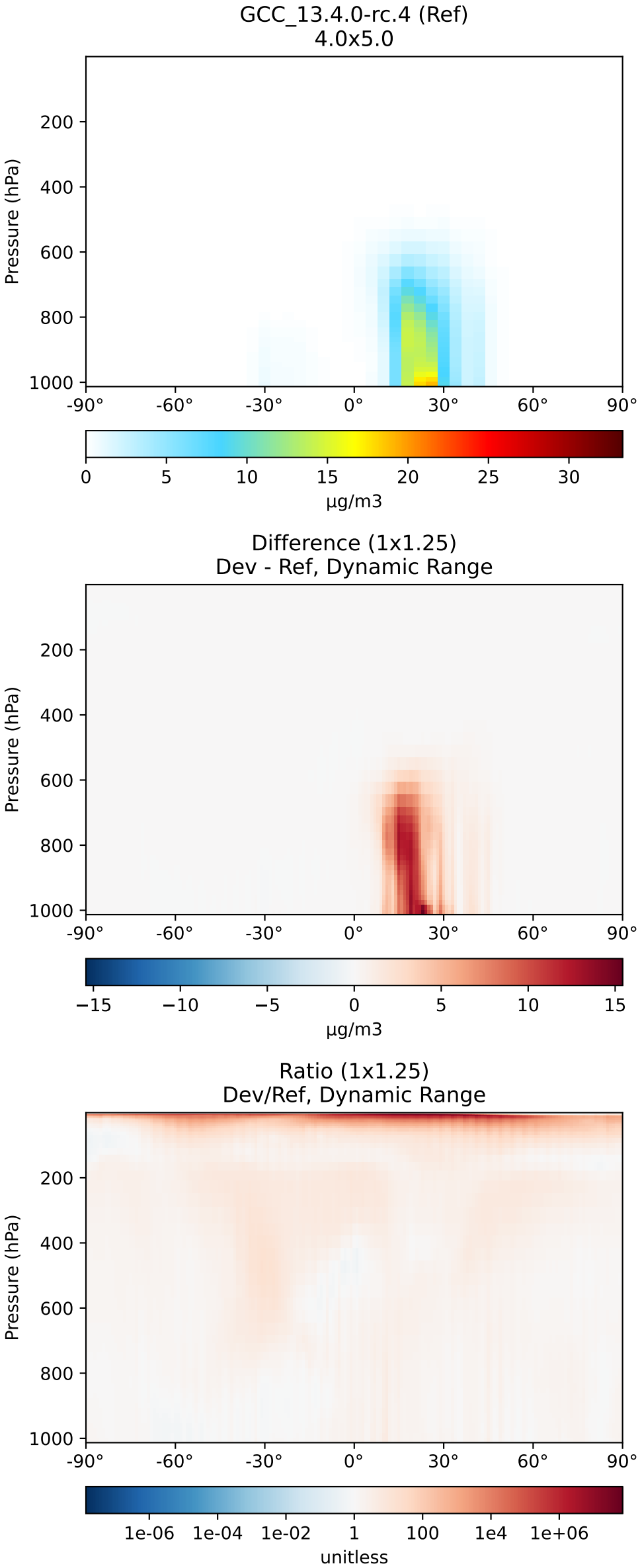
Ratio (1x1.25)
Dev/Ref, Fixed Range

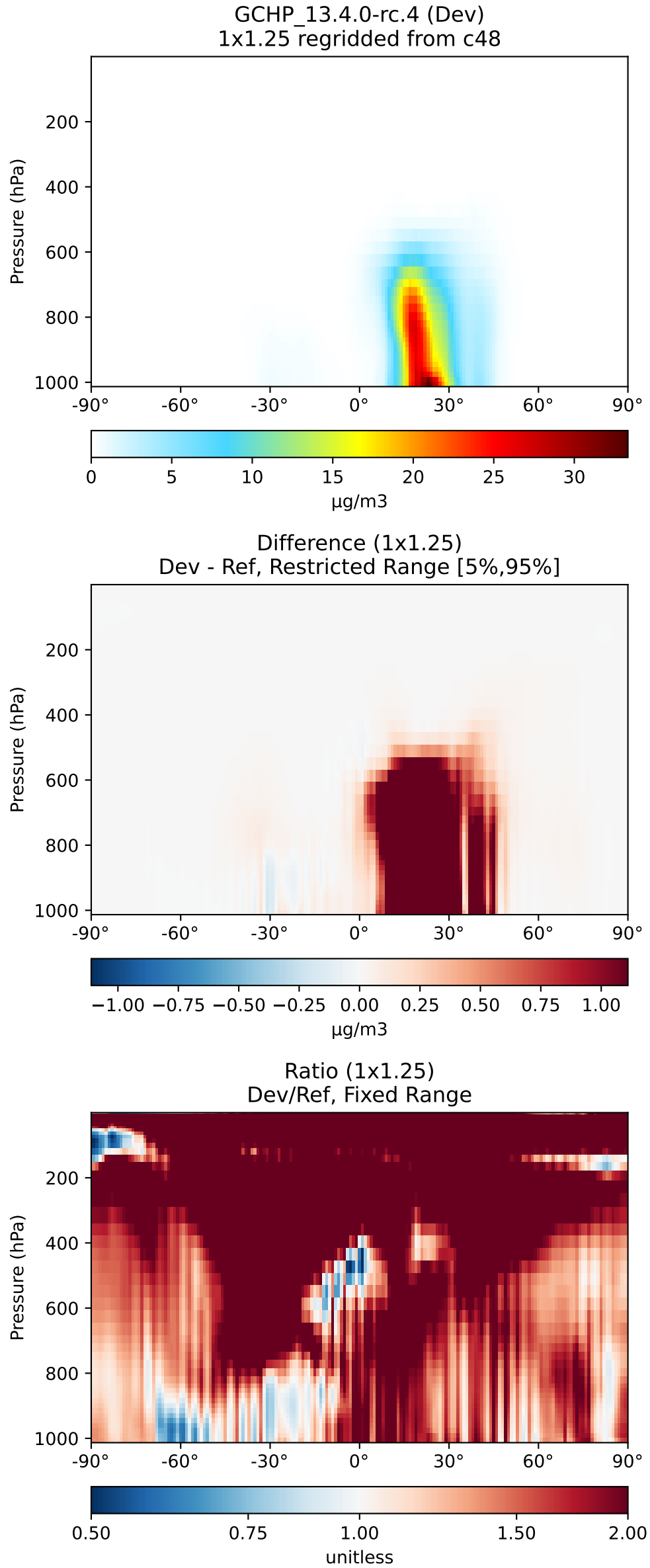
1e-05 1e-03 1e-01 10 1000 1e+05

0.50 0.75 1.00 1.50 2.00

unitless

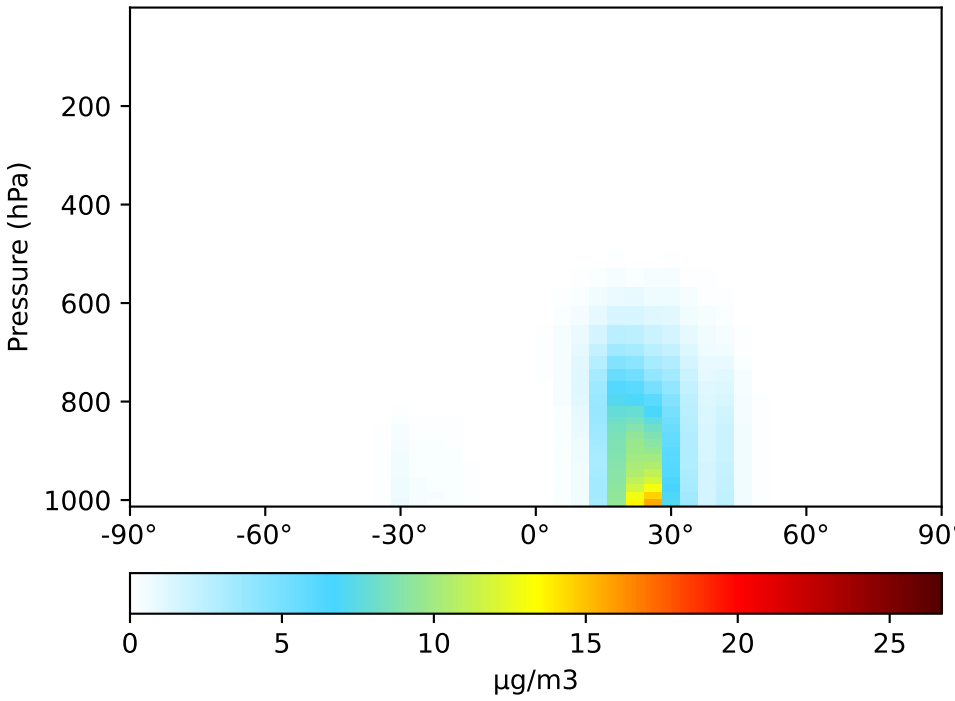
SpeciesConc_DST3, Zonal Mean



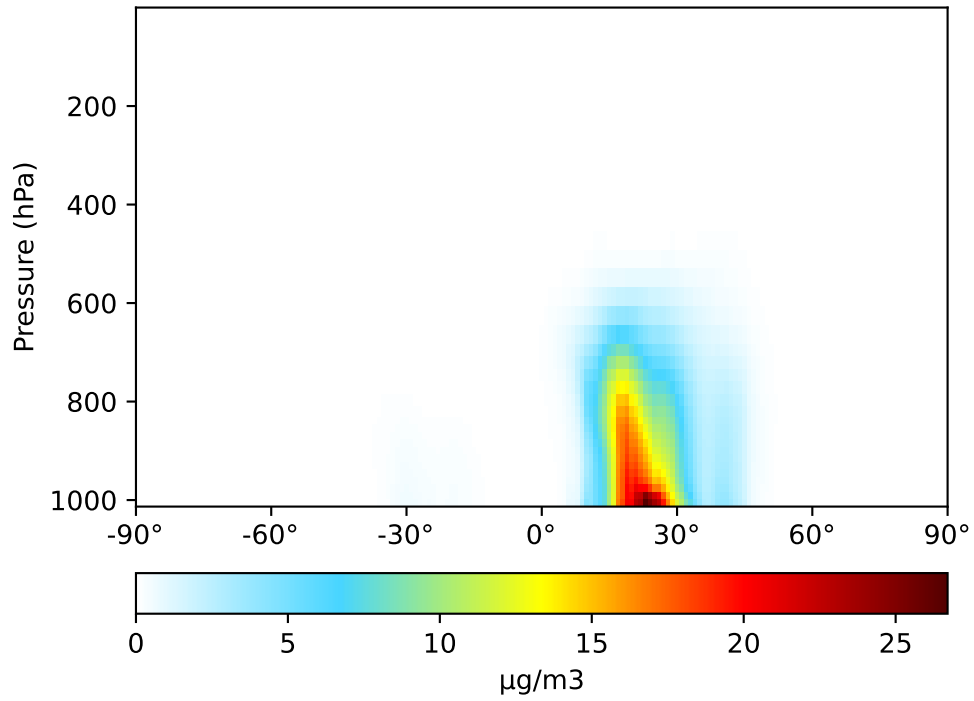


SpeciesConc_DST4, Zonal Mean

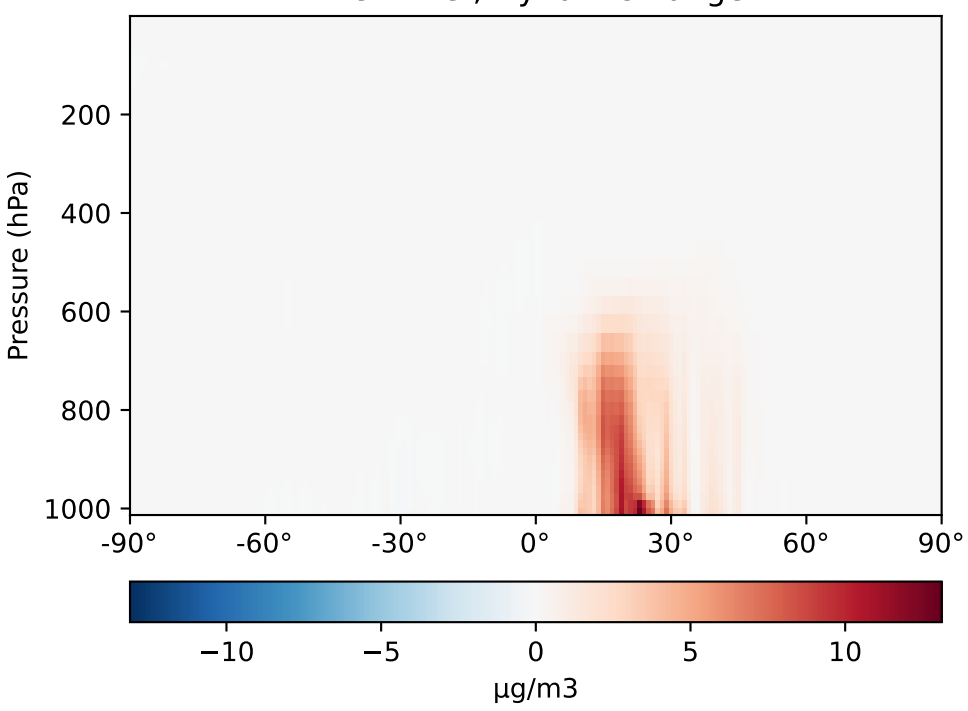
GCC_13.4.0-rc.4 (Ref)
4.0x5.0



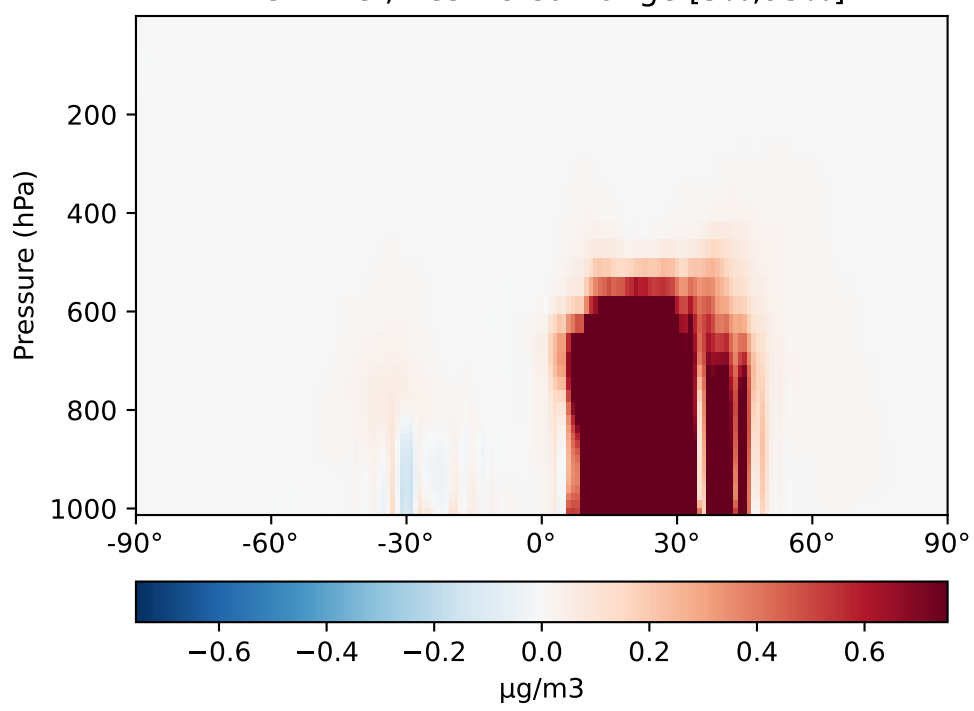
GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48



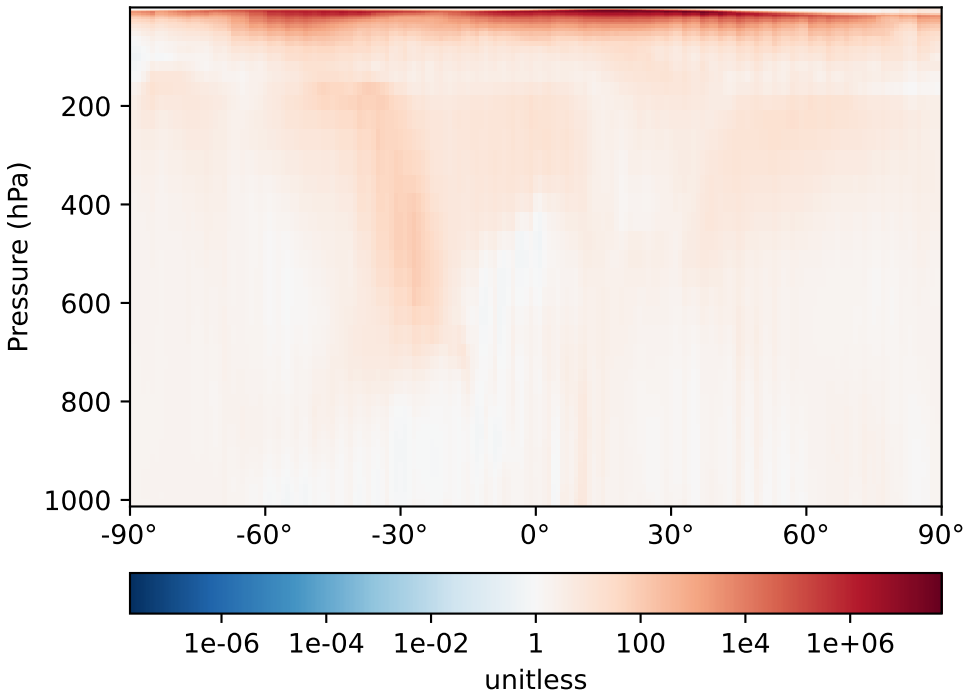
Difference (1x1.25)
Dev - Ref, Dynamic Range



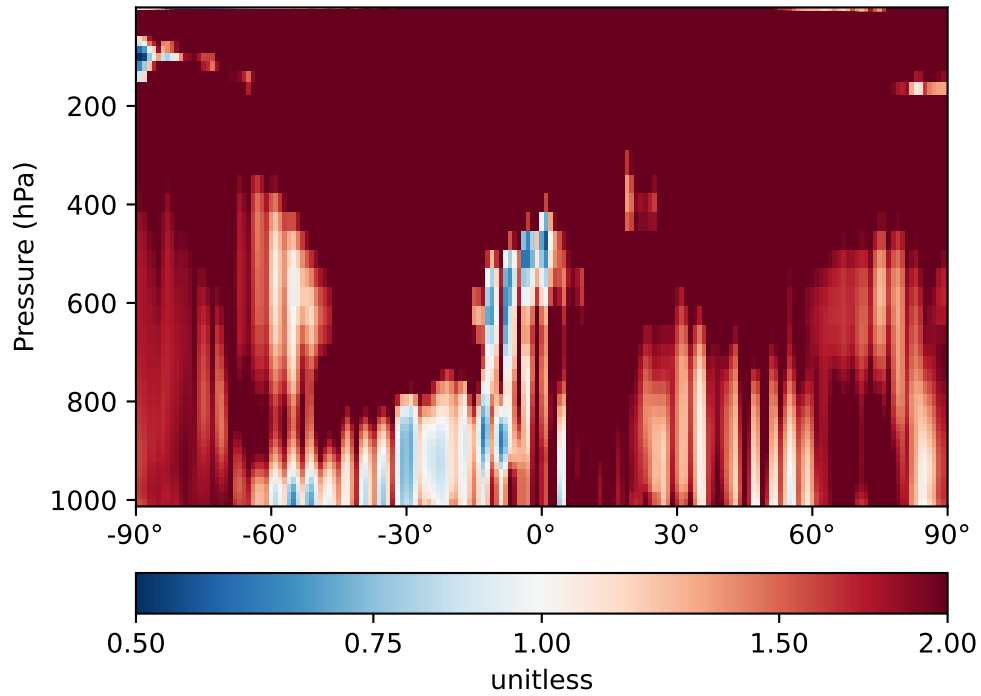
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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



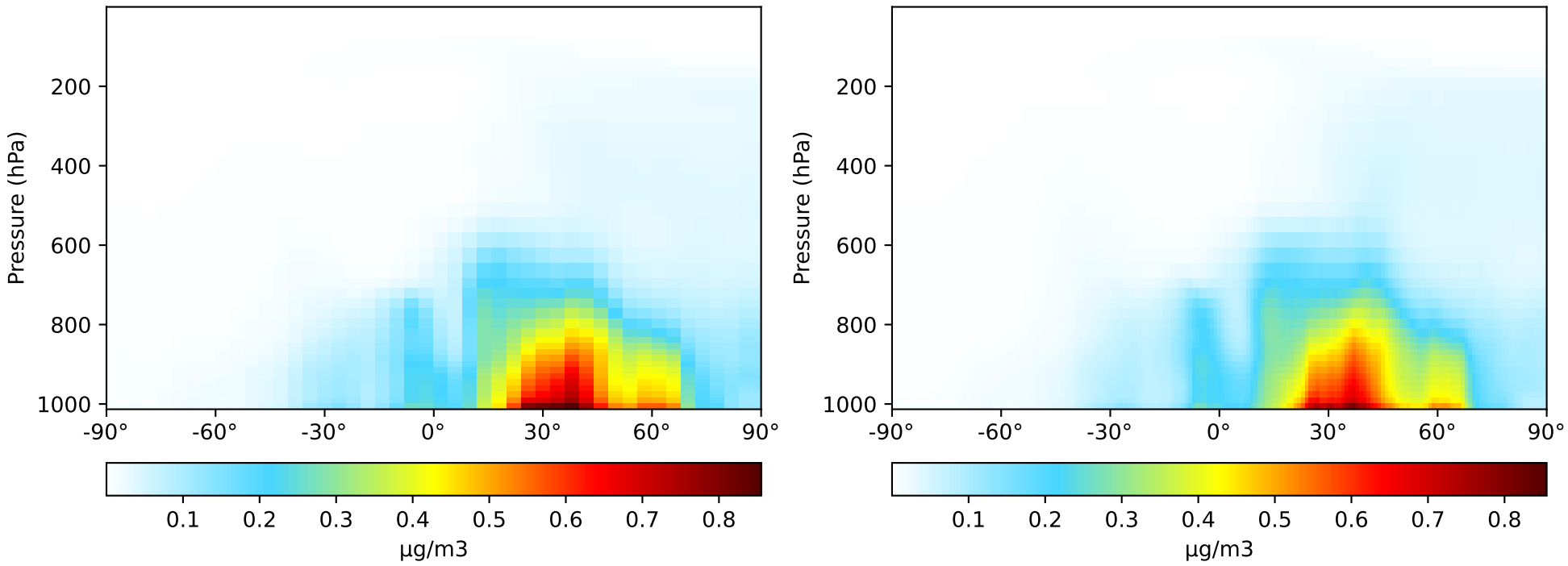
Ratio (1x1.25)
Dev/Ref, Fixed Range



SpeciesConc_NH4, Zonal Mean

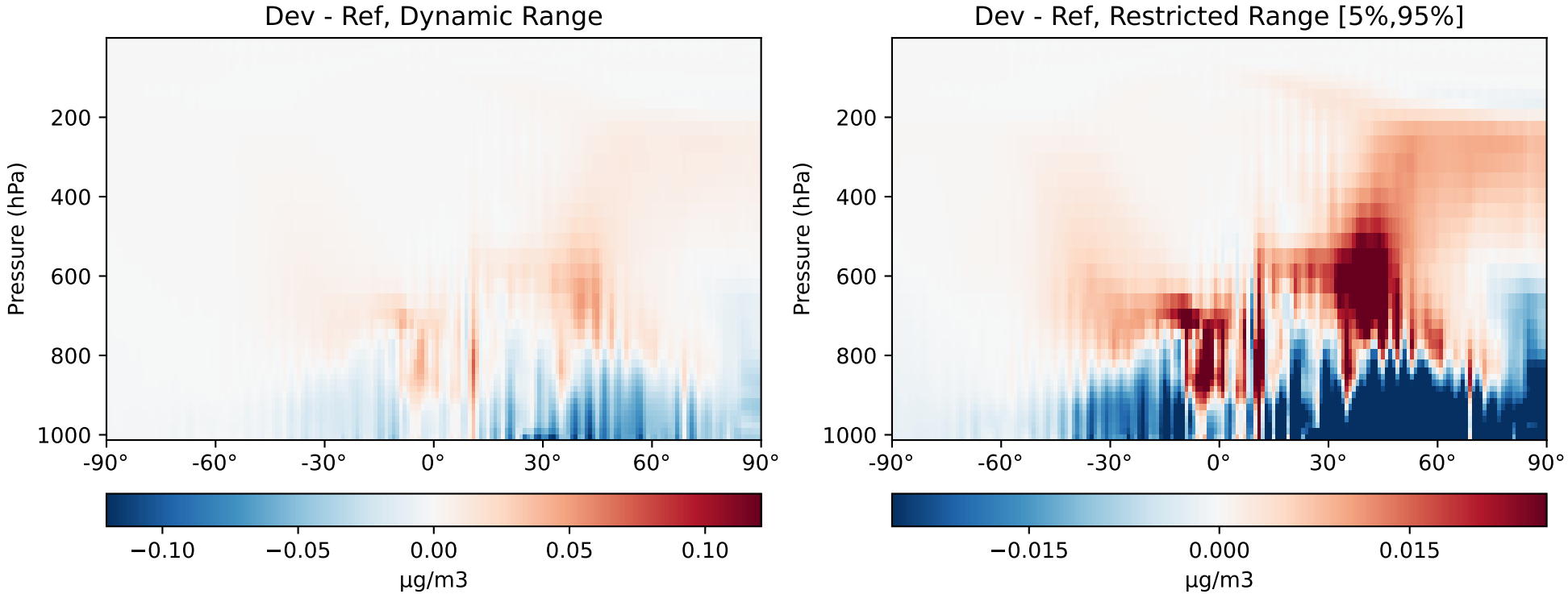
GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48



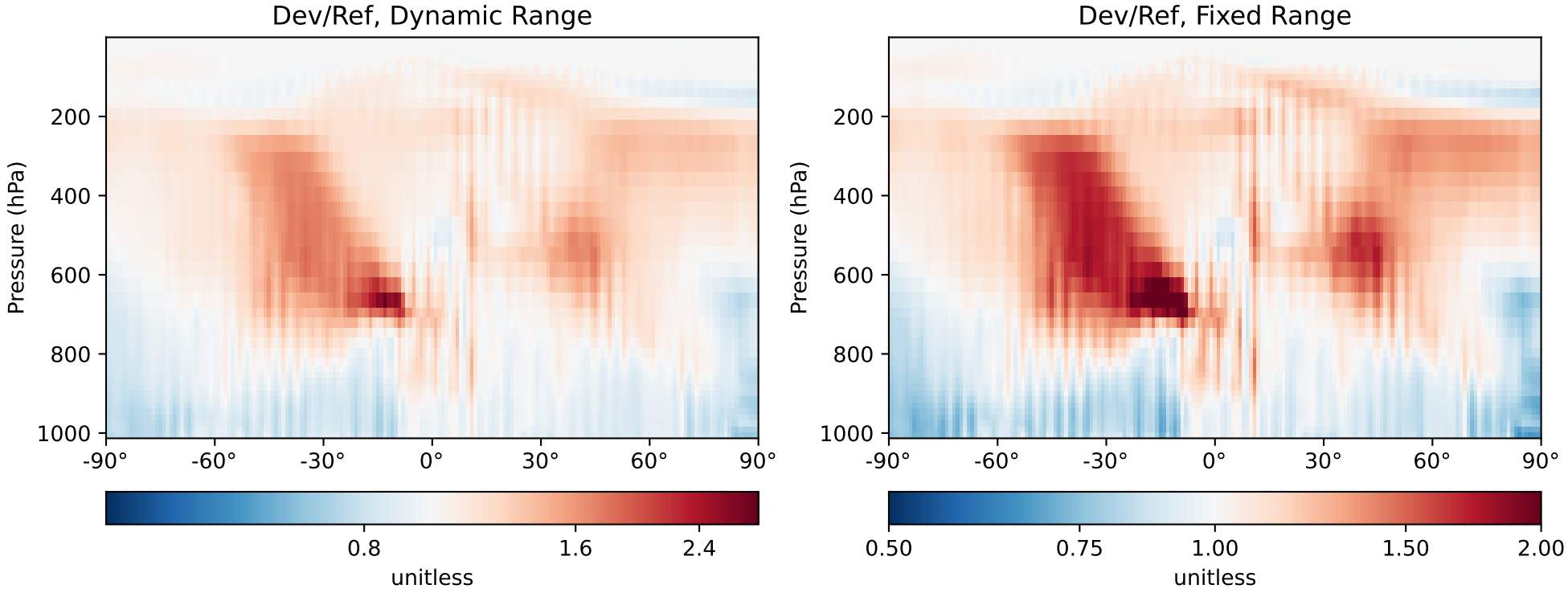
Difference (1x1.25)
Dev - Ref, Dynamic Range

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

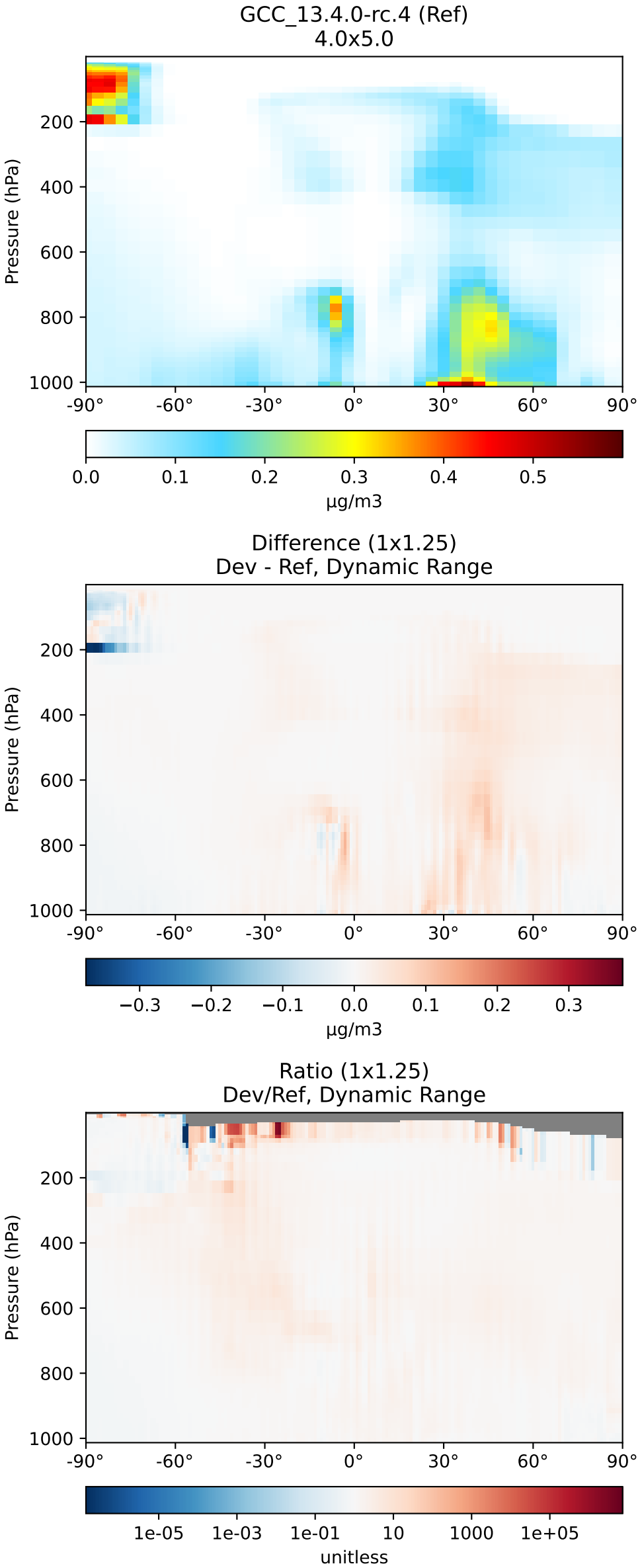


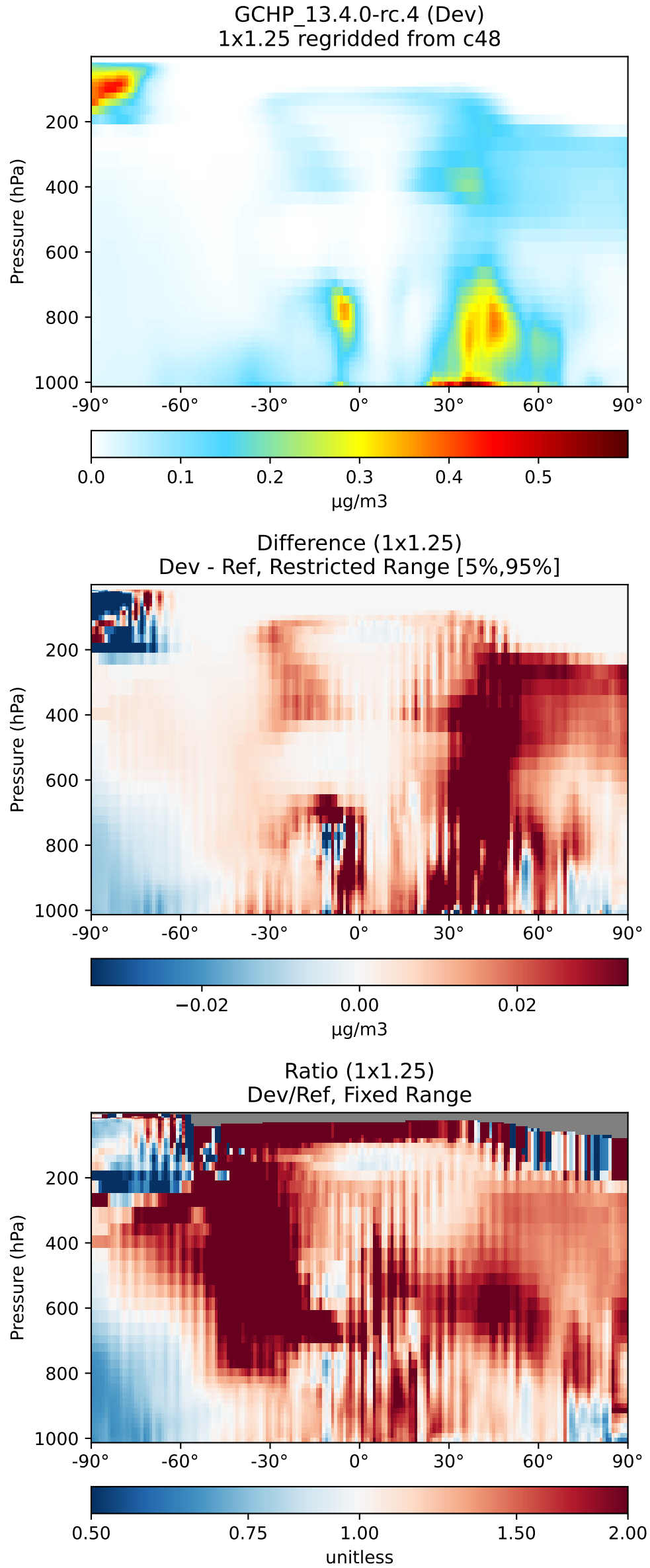
Ratio (1x1.25)
Dev/Ref, Dynamic Range

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

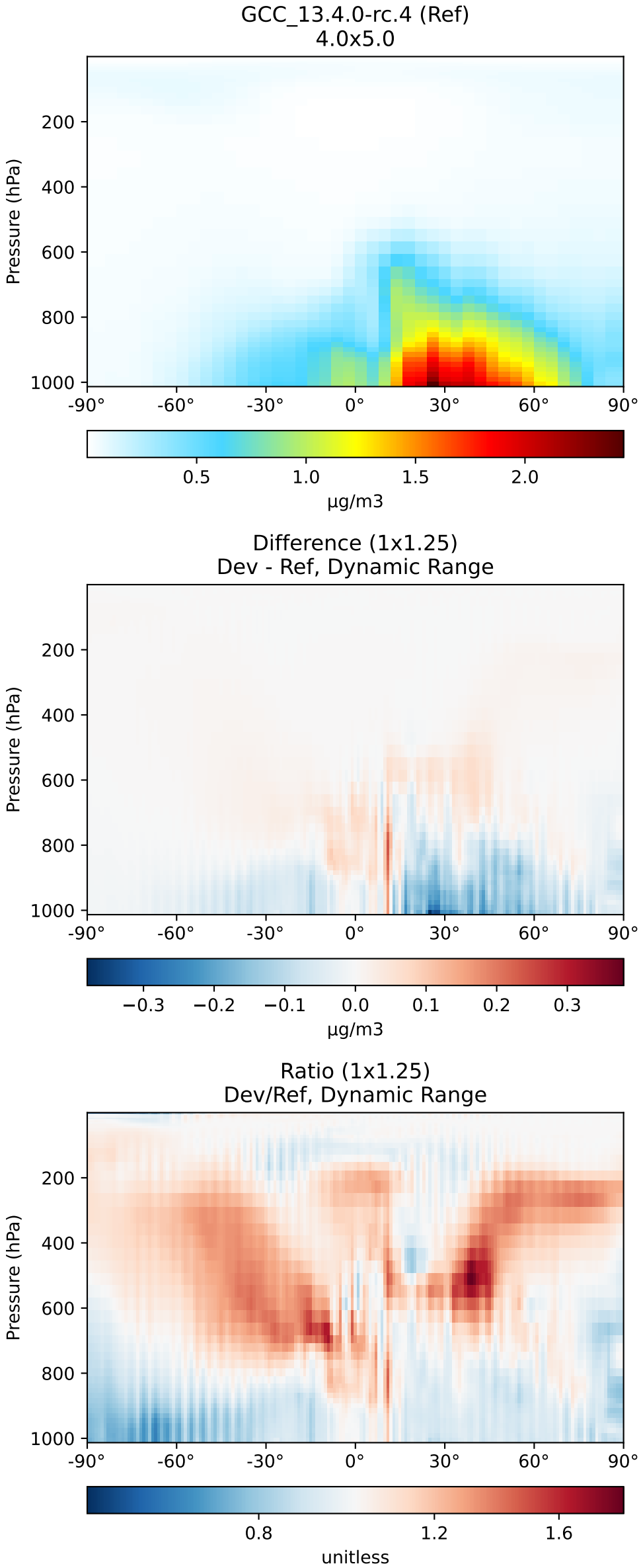


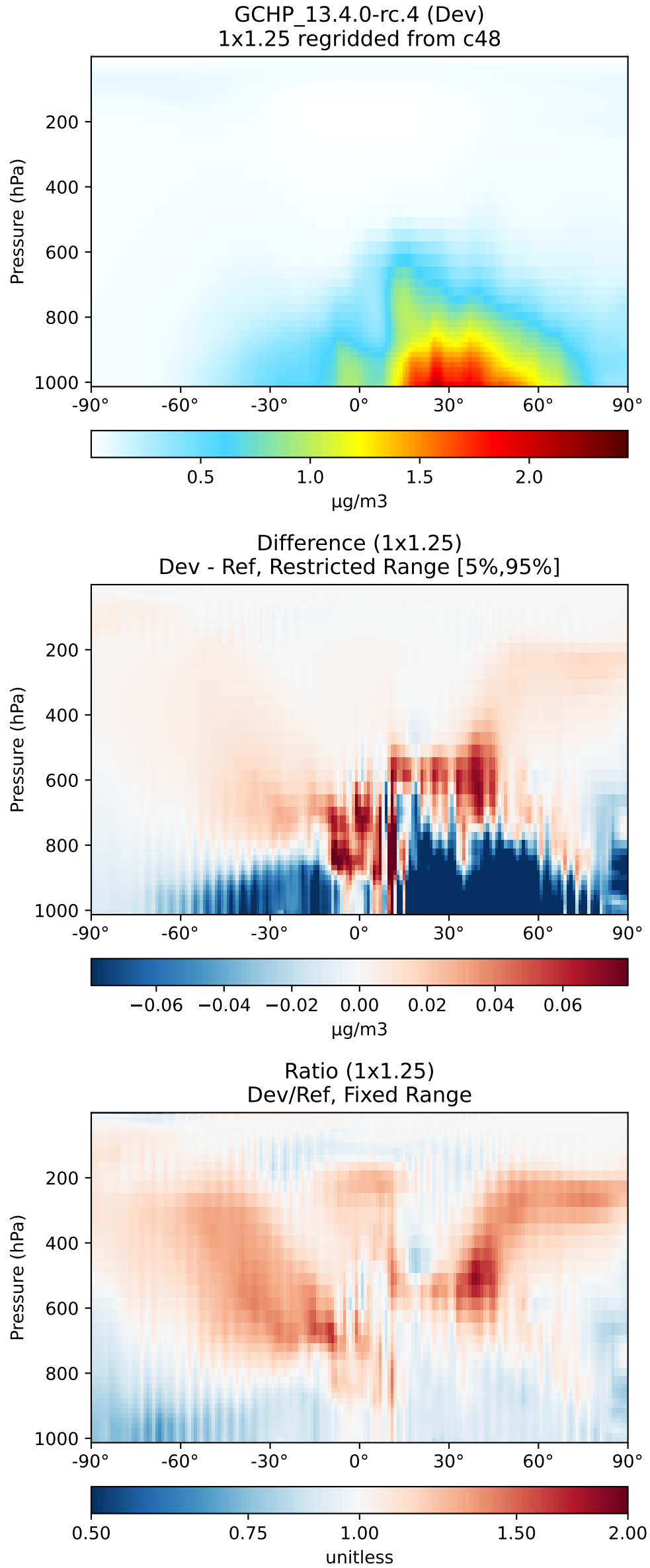
SpeciesConc_NIT, Zonal Mean





SpeciesConc_SO4, Zonal Mean





SpeciesConc_HMS, Zonal Mean

GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48

Pressure (hPa)

200
400
600
800
1000

-90° -60° -30° 0° 30° 60° 90°

0.1 0.2 0.3 0.4 0.5 0.6 0.7

µg/m3

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

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

−0.15 −0.10 −0.05 0.00 0.05 0.10 0.15

µg/m3

−0.004 0.000 0.004

µg/m3

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

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

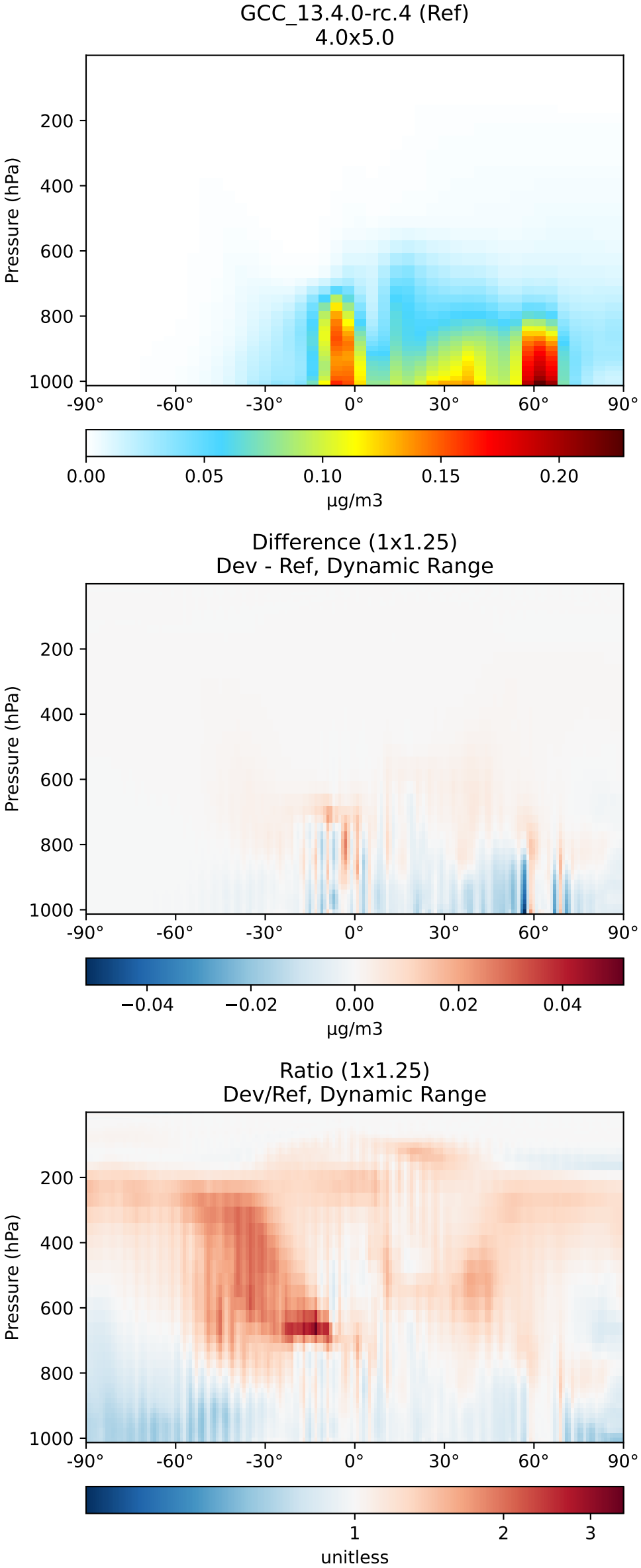
1.5 3.0

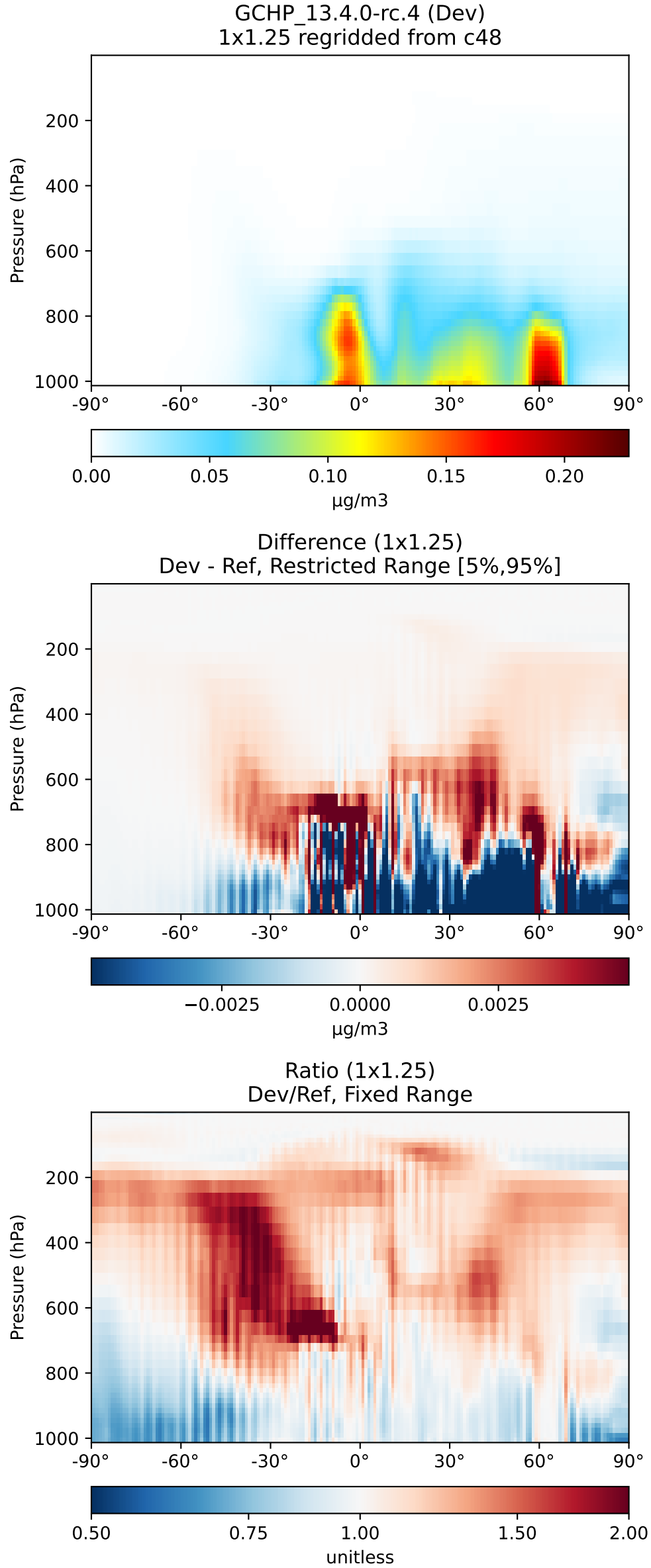
unitless

0.50 0.75 1.00 1.50 2.00

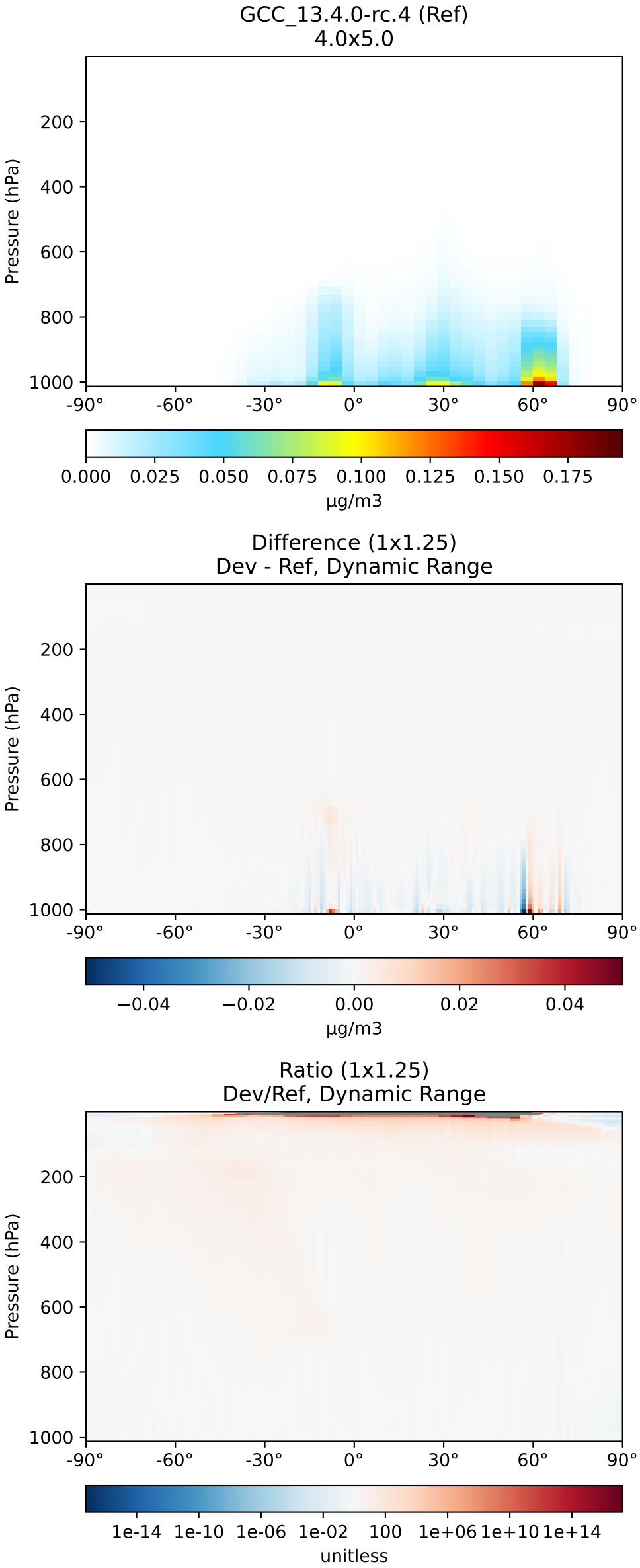
unitless

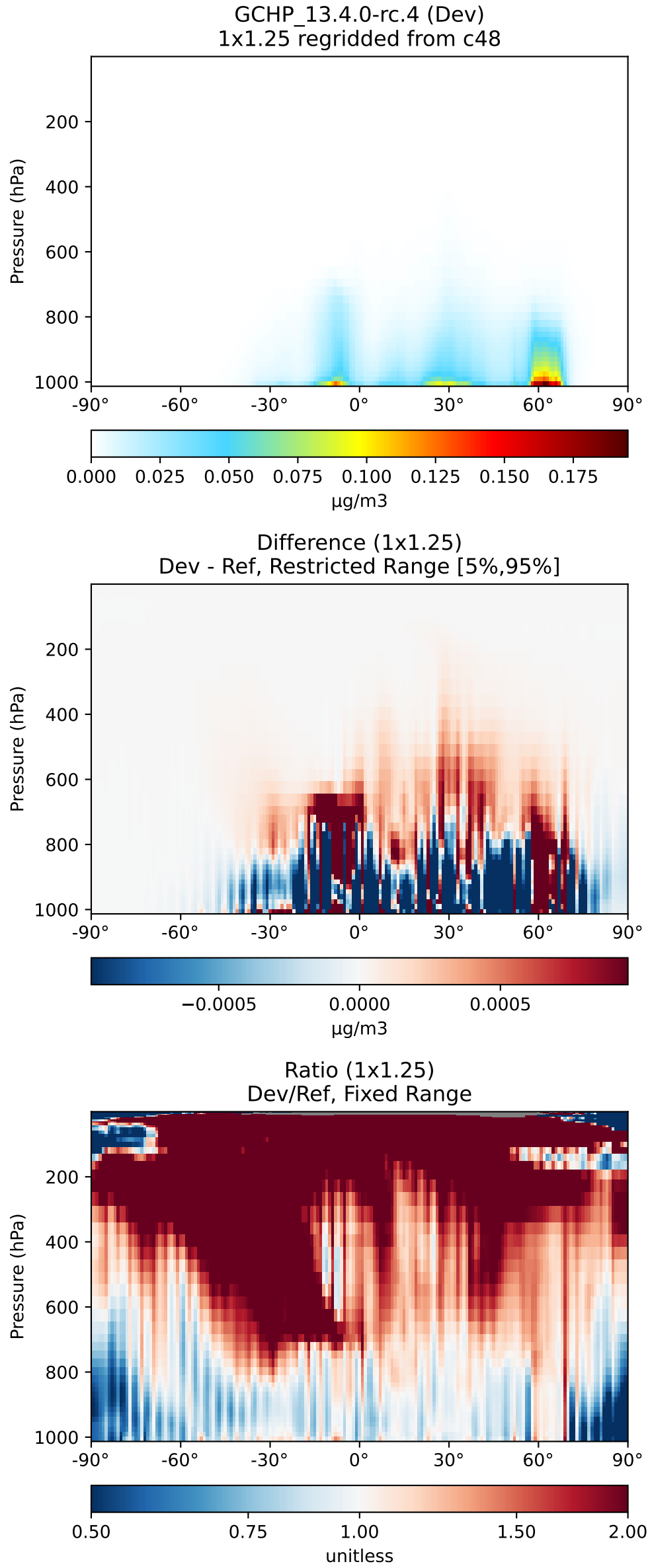
SpeciesConc_BCPI, Zonal Mean



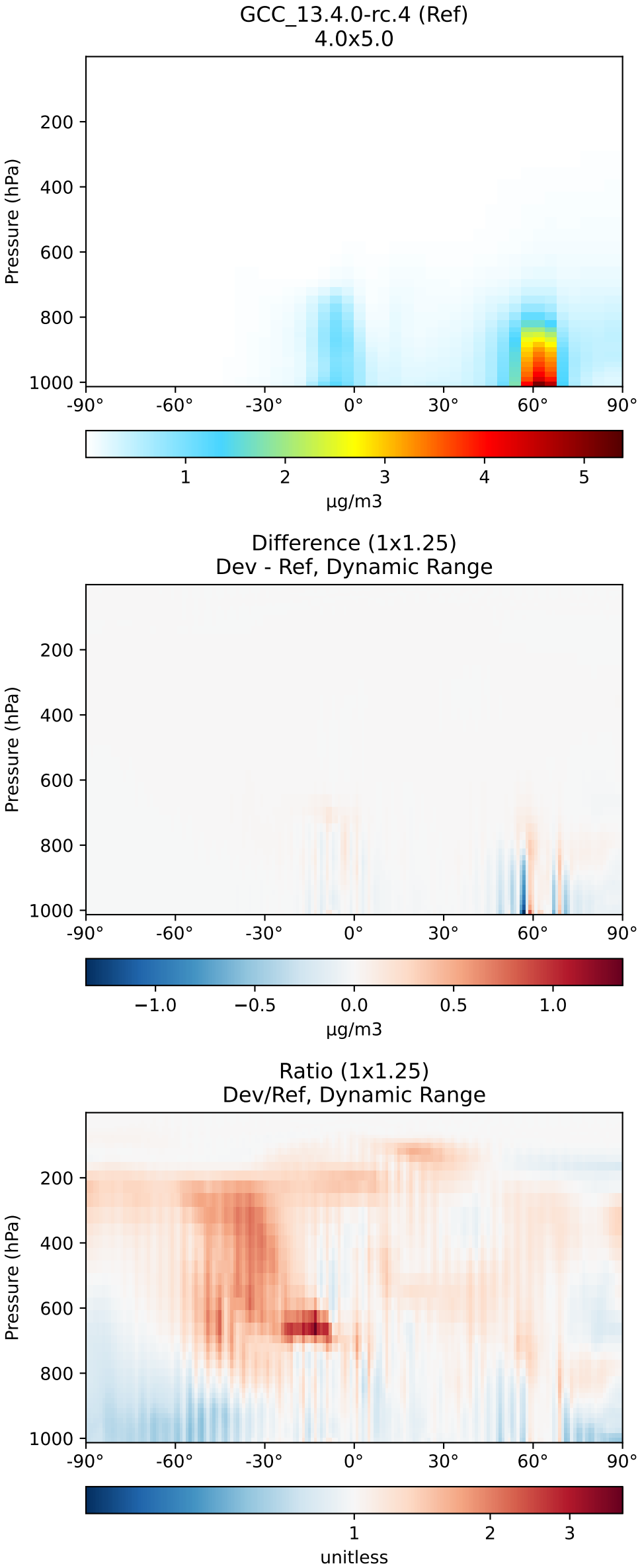


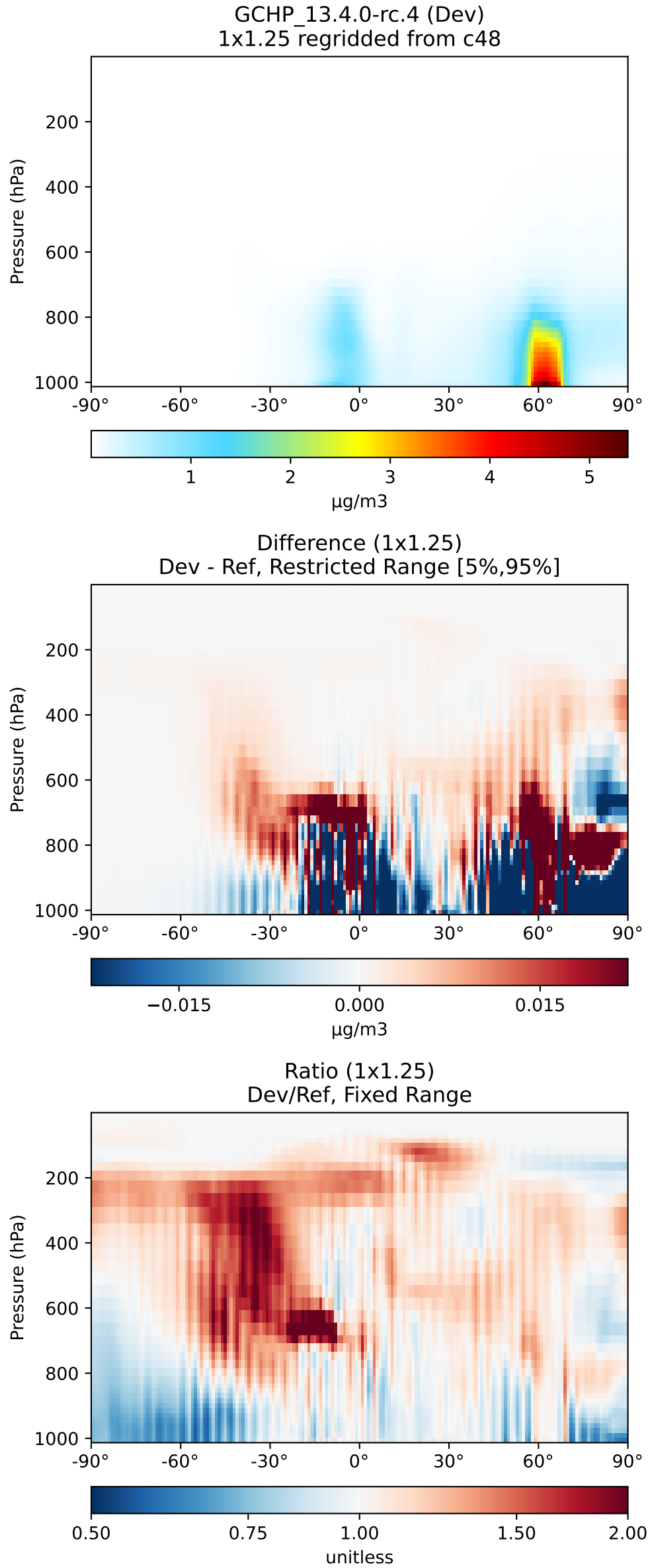
SpeciesConc_BCPO, Zonal Mean





SpeciesConc_OCPI, Zonal Mean





SpeciesConc_OCPO, Zonal Mean

GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48

Pressure (hPa)

200
400
600
800
1000

-90° -60° -30° 0° 30° 60° 90°

0.0 0.5 1.0 1.5 2.0

µg/m3

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

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

−0.6 −0.4 −0.2 0.0 0.2 0.4 0.6

µg/m3

−0.0015 0.0000 0.0015

µg/m3

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

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

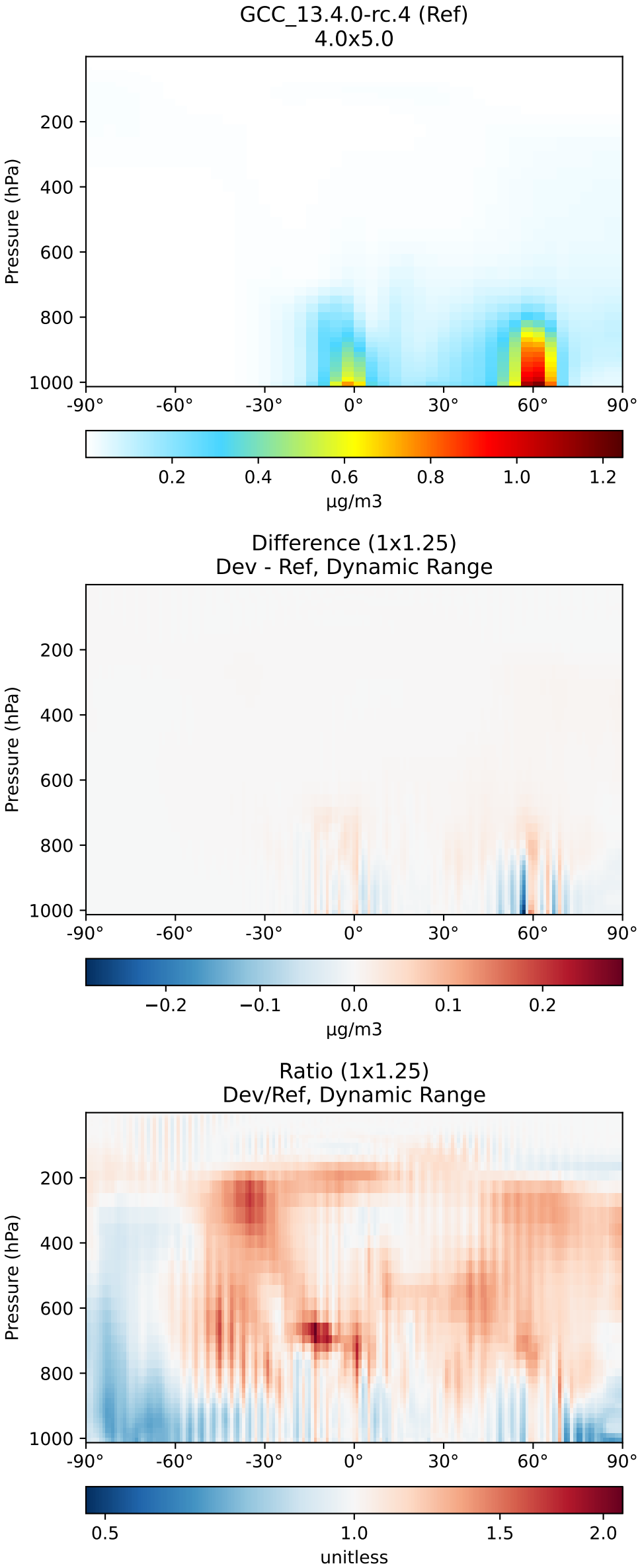
1e-13 1e-09 1e-05 1e-01 1000 1e+07 1e+11 1e+15

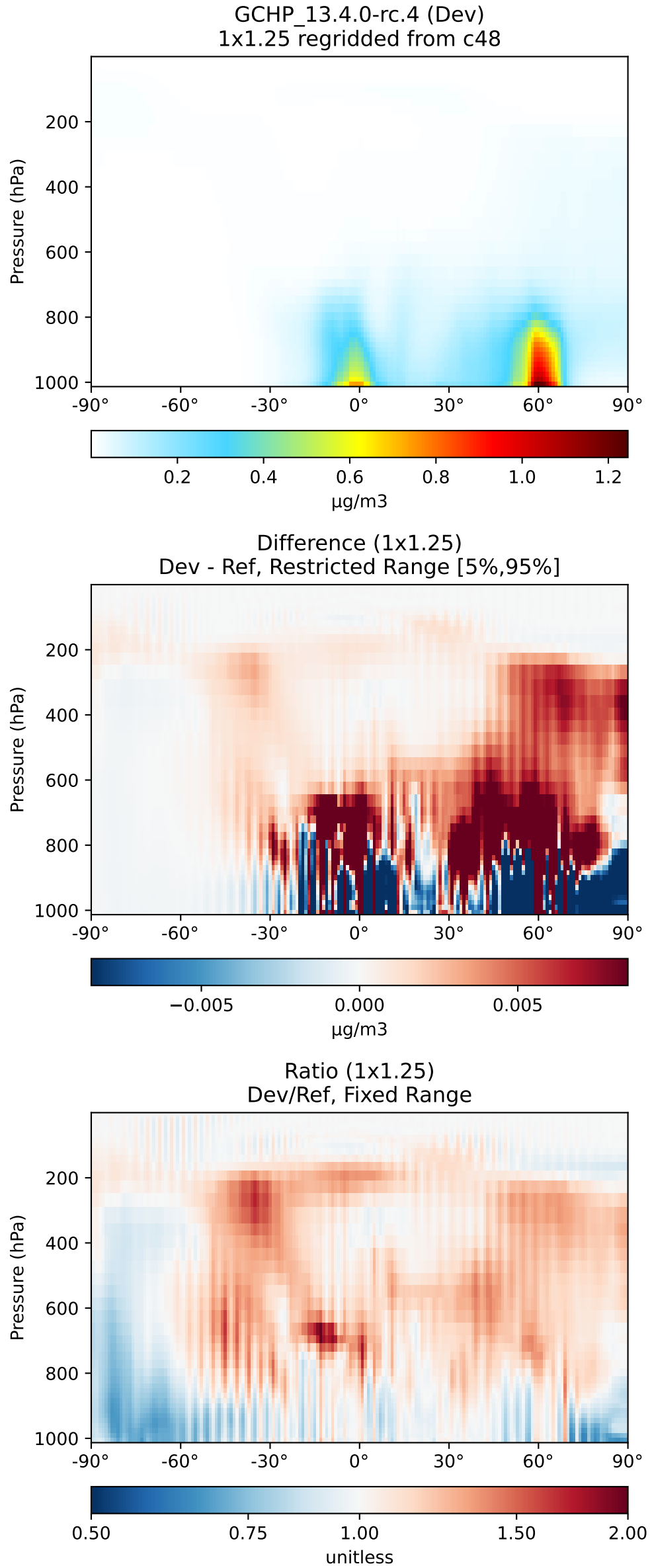
unitless

0.50 0.75 1.00 1.50 2.00

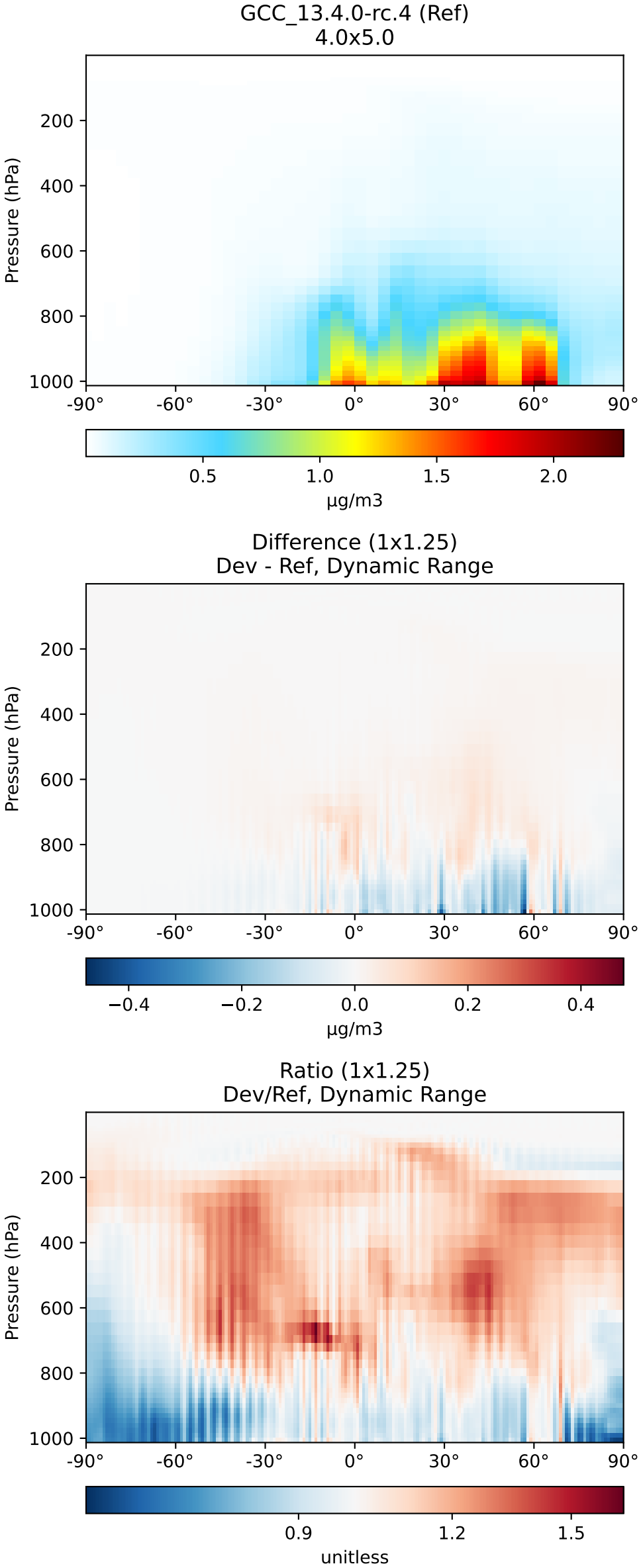
unitless

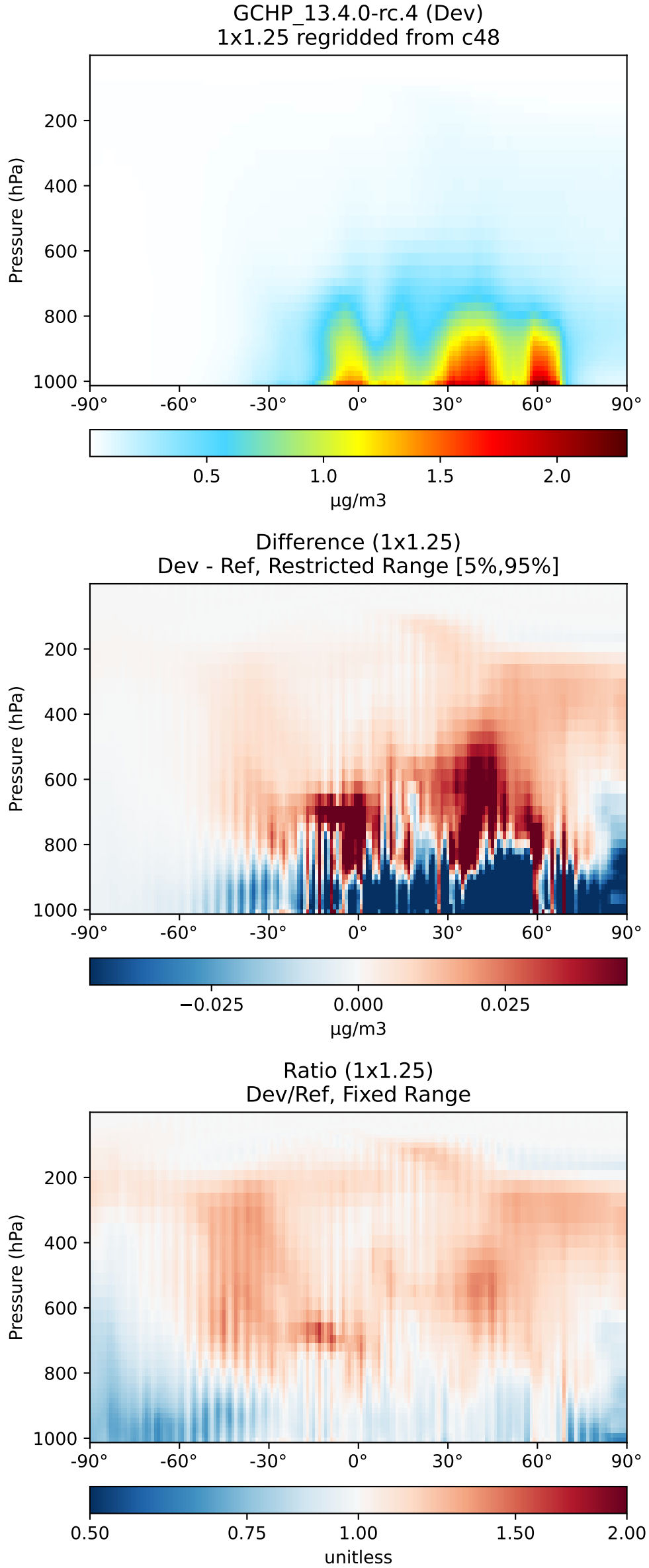
SpeciesConc_Complex_SOA, Zonal Mean



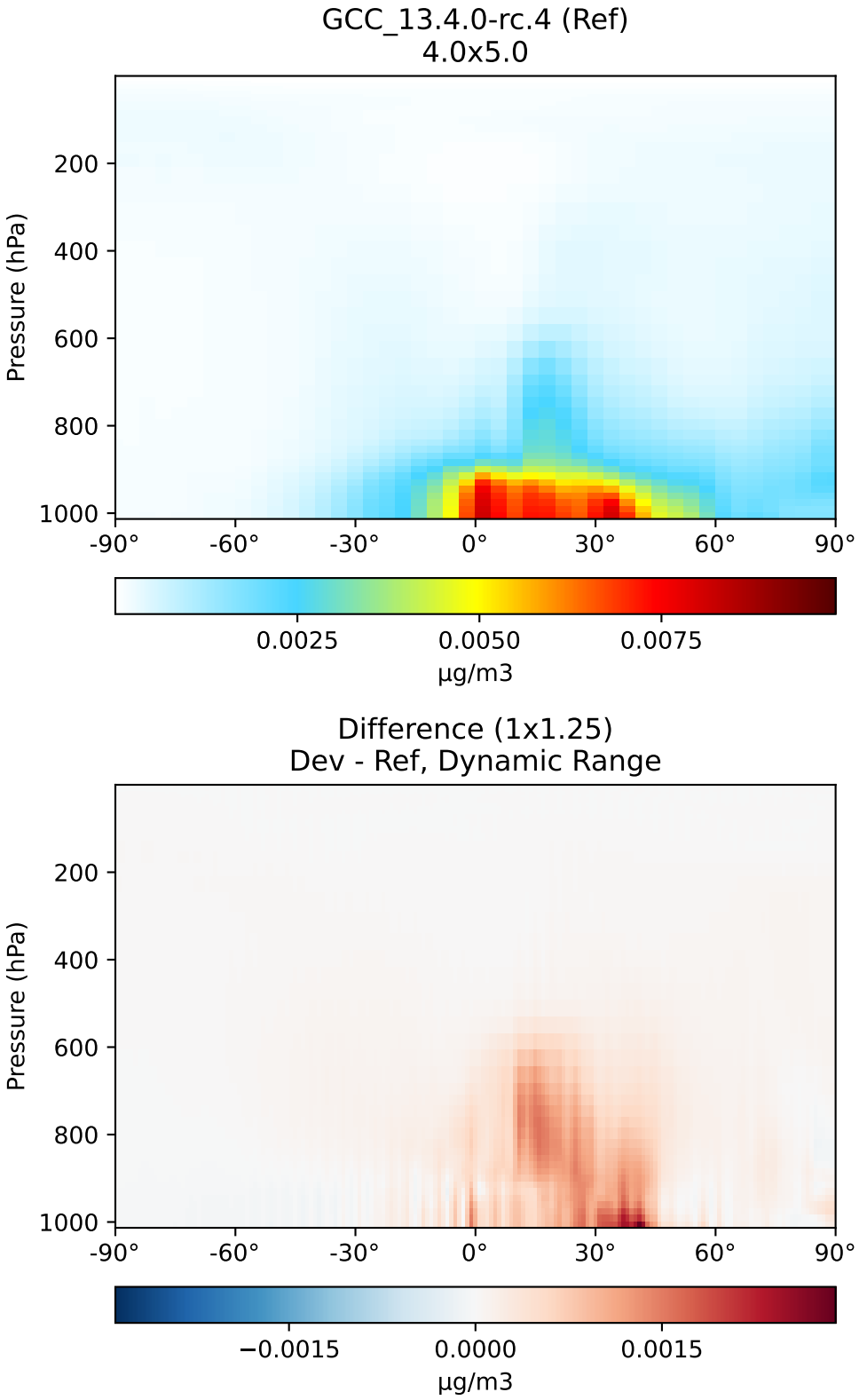


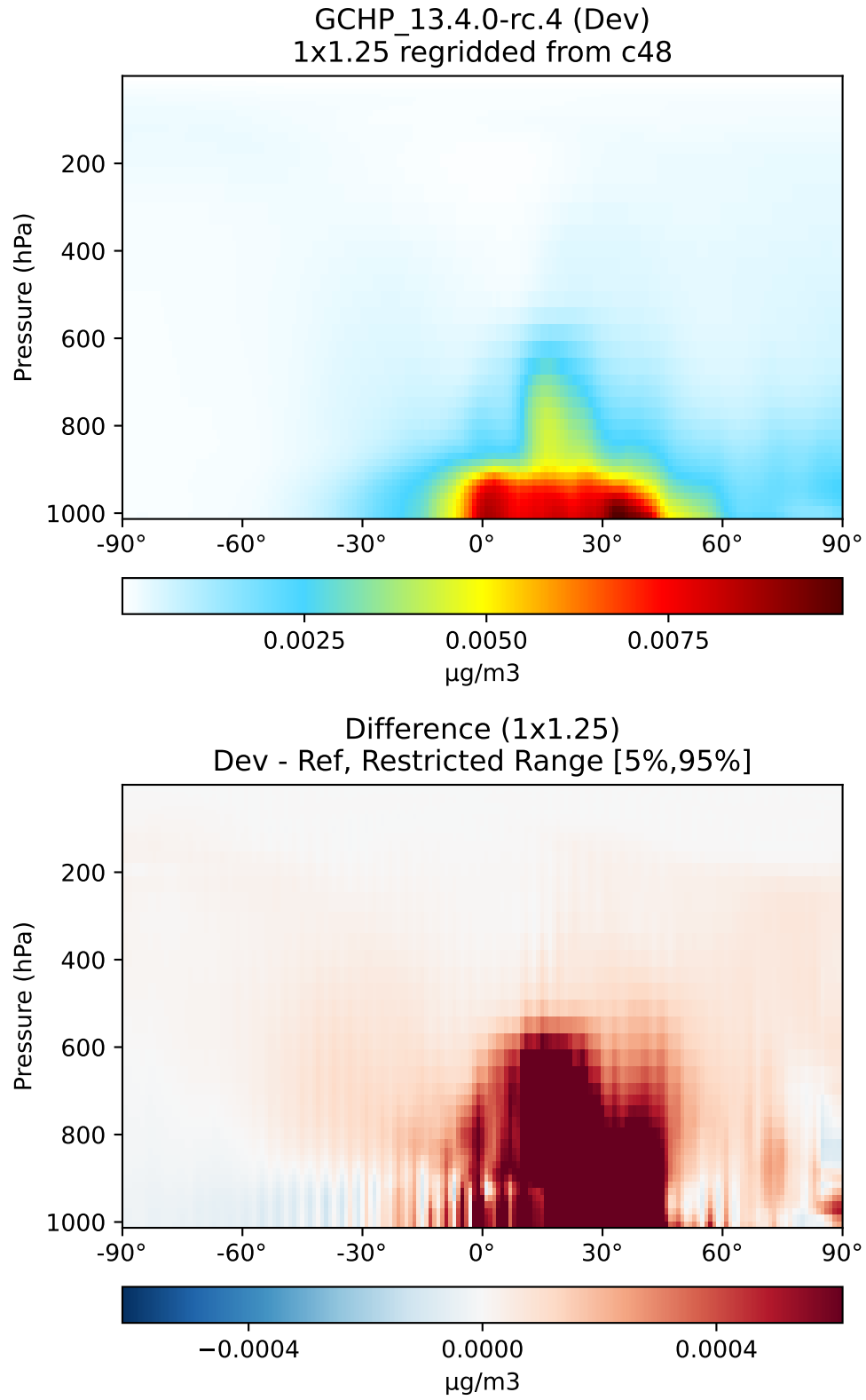
SpeciesConc_Simple_SOA, Zonal Mean

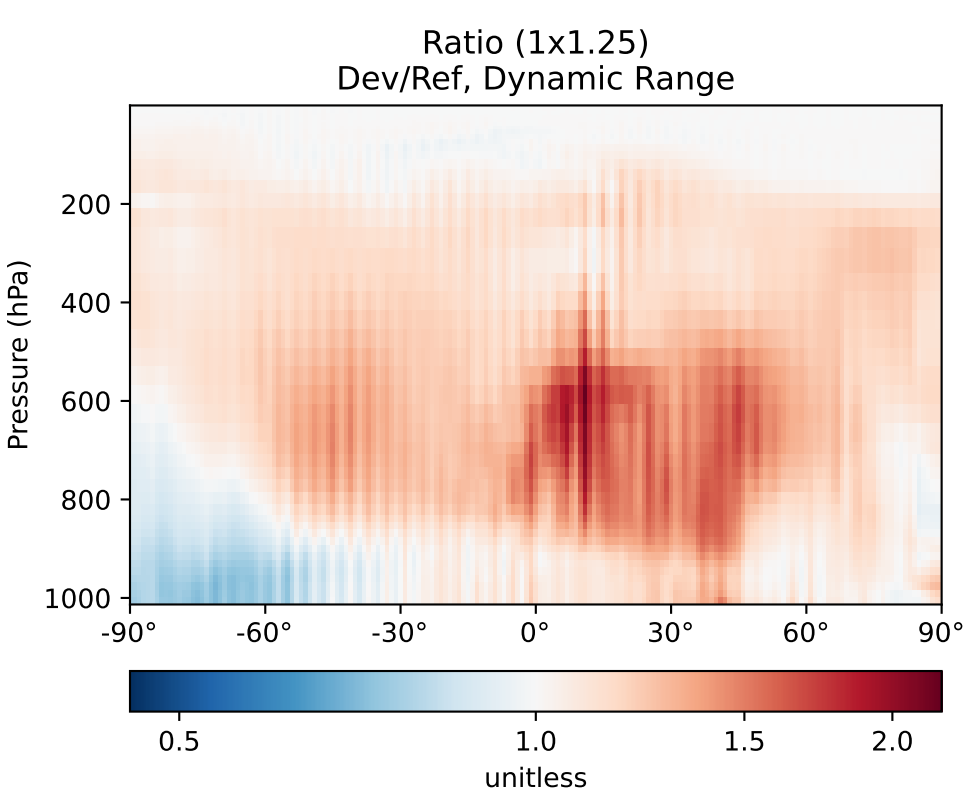


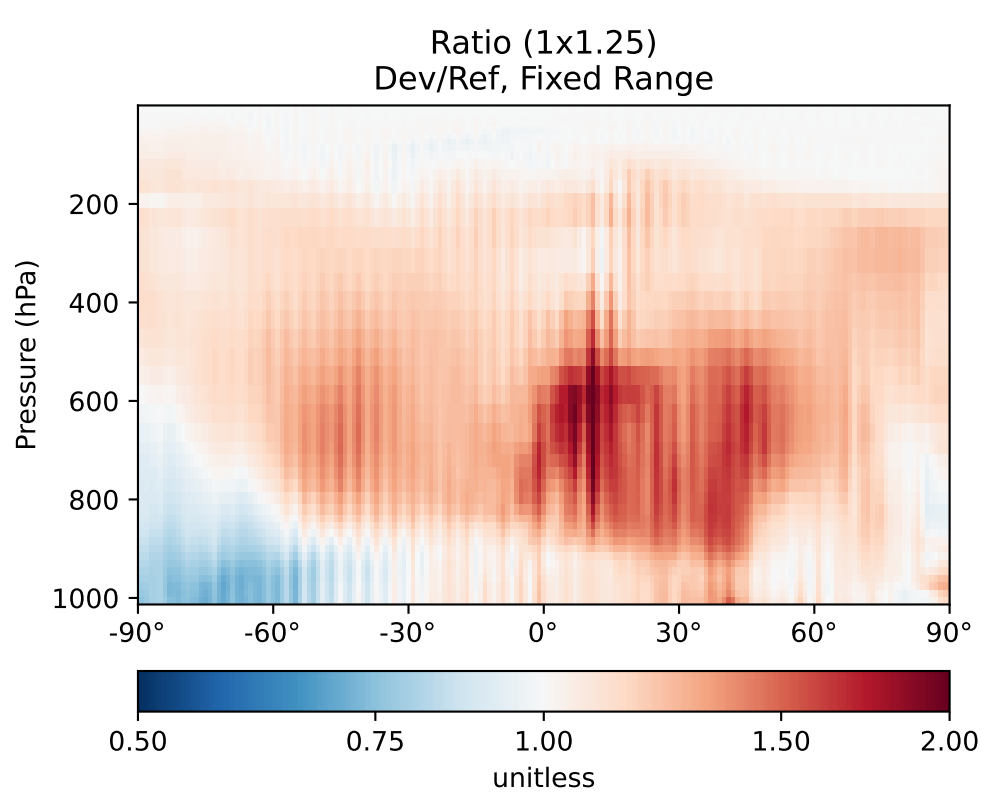


SpeciesConc_AERI, Zonal Mean

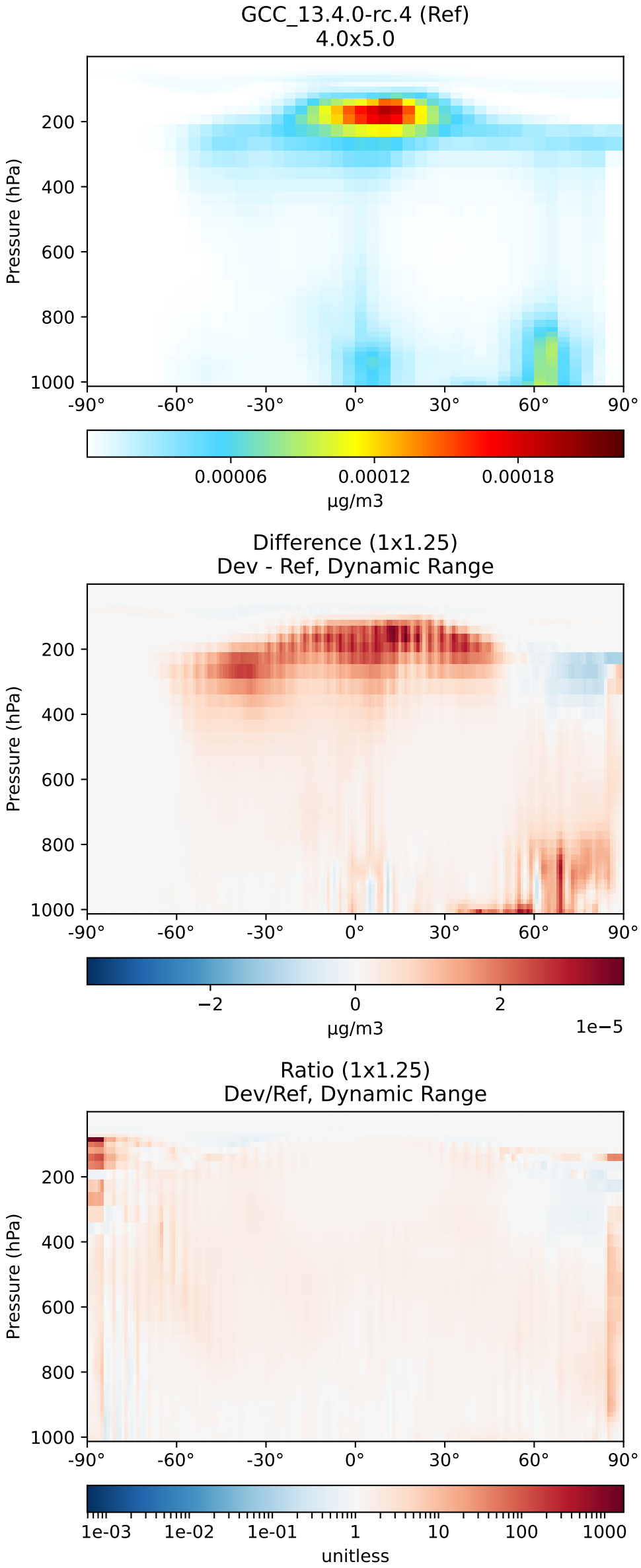


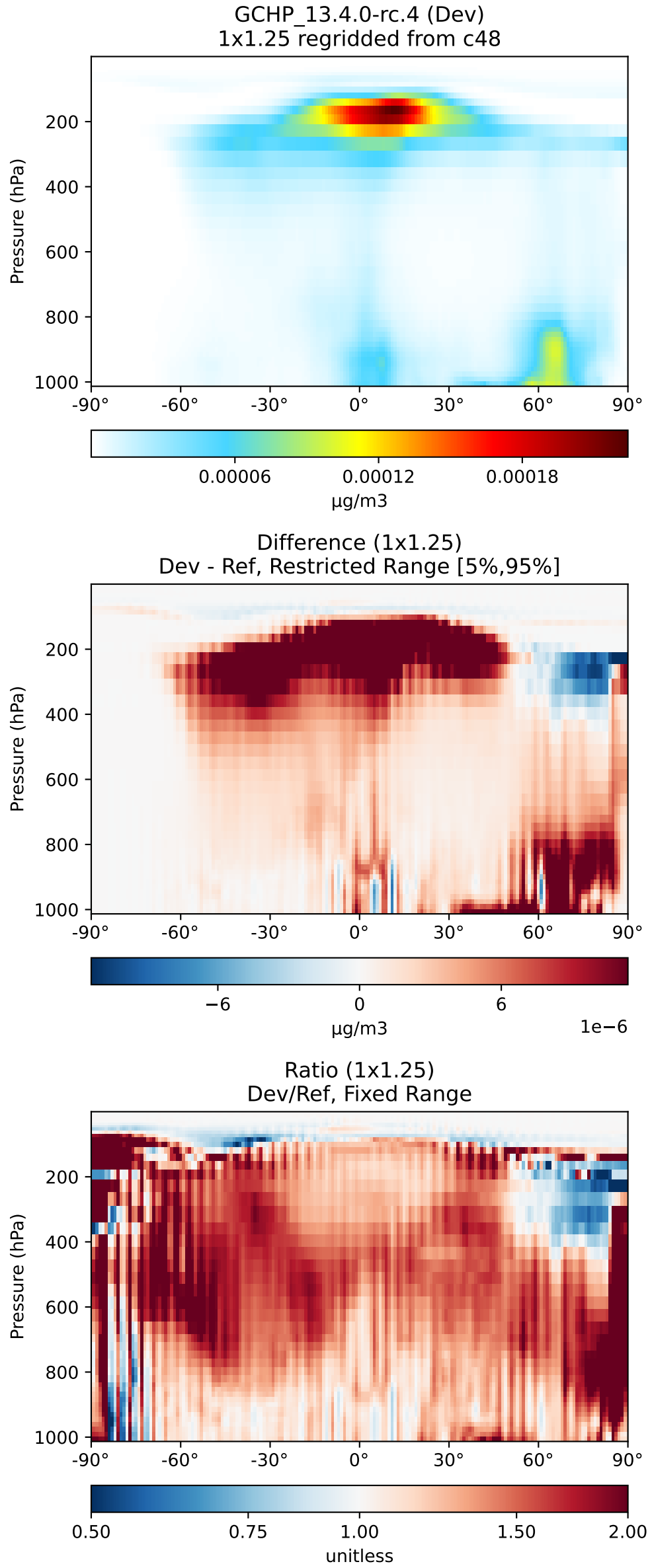




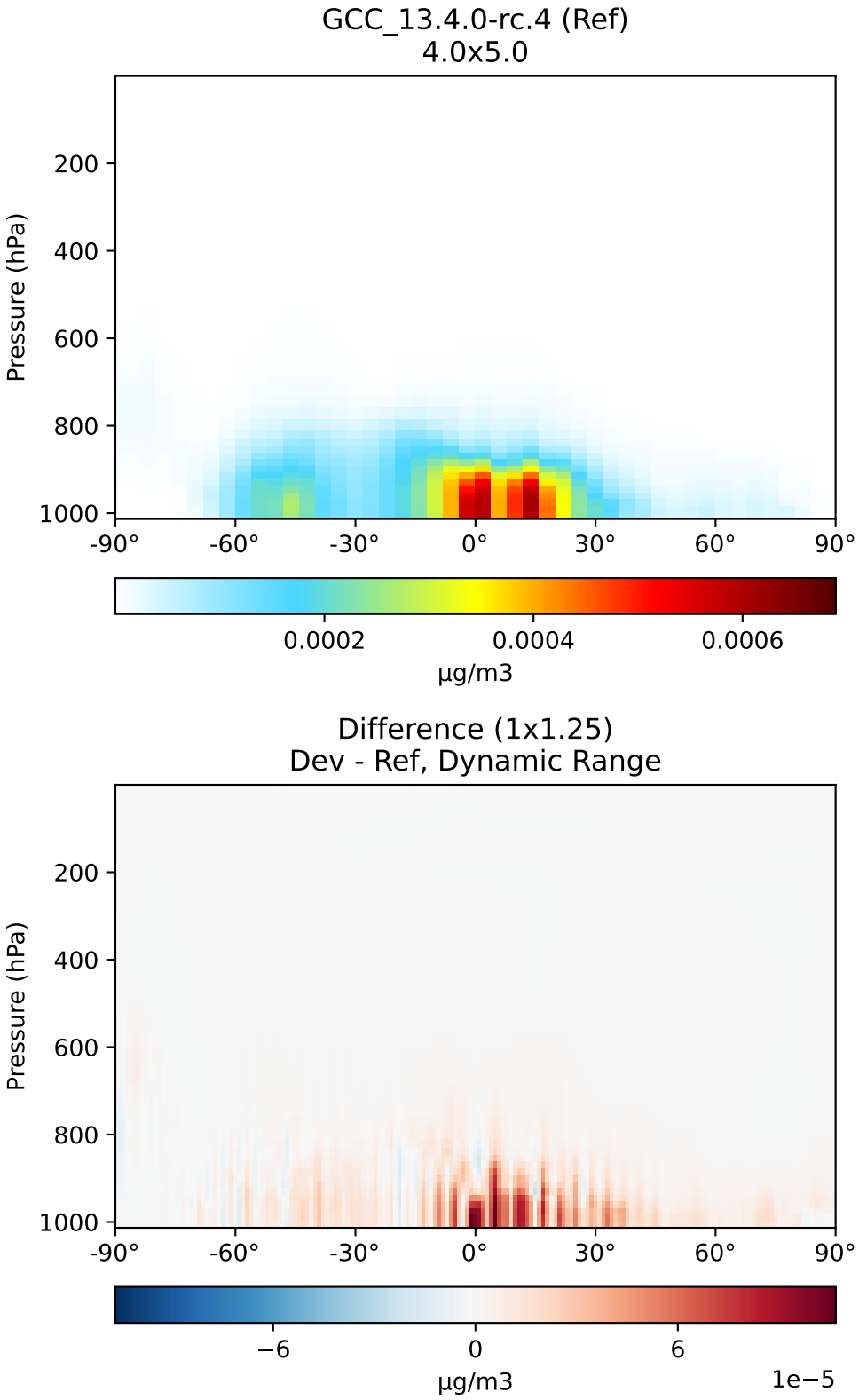


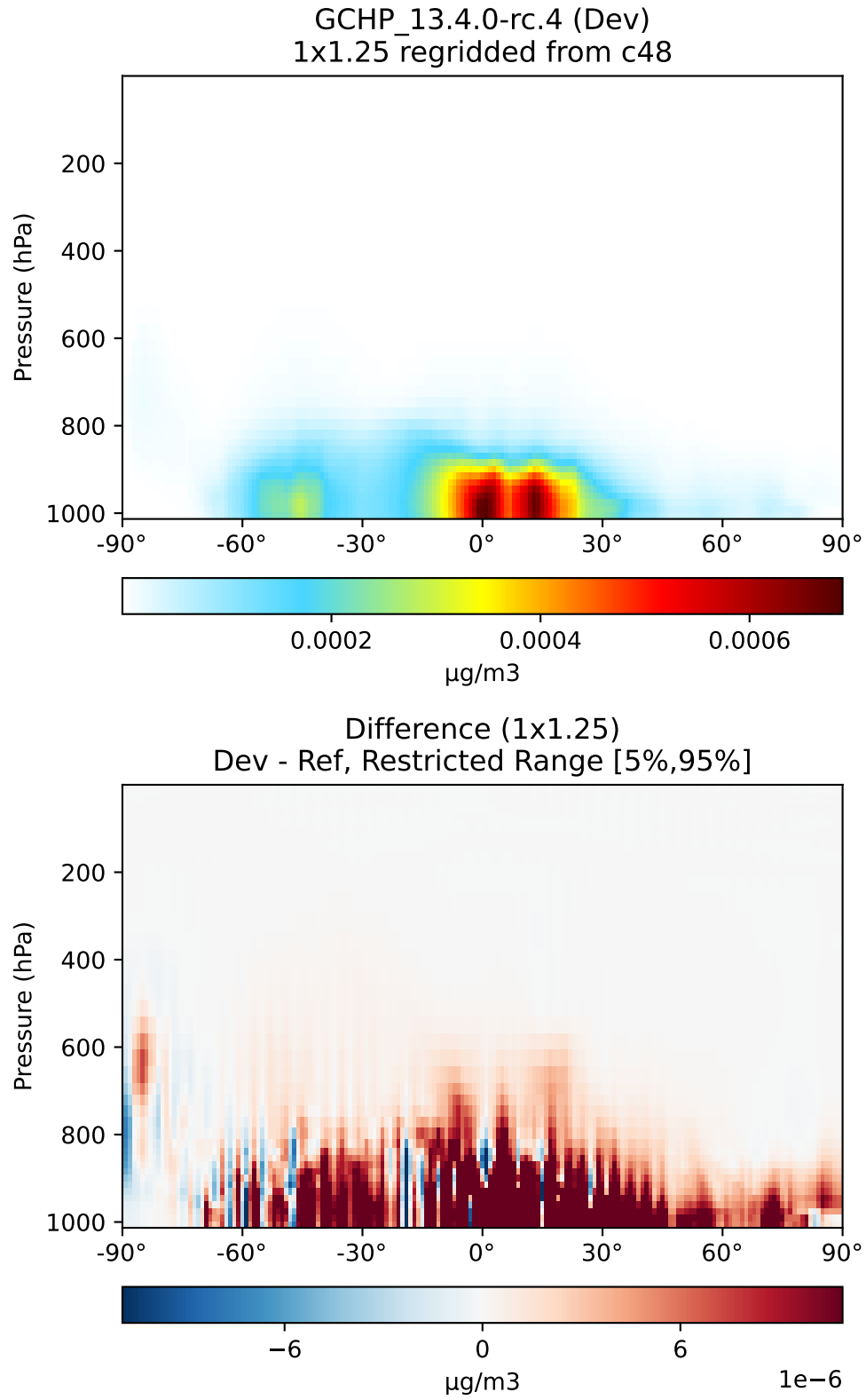
SpeciesConc_BrSALA, Zonal Mean

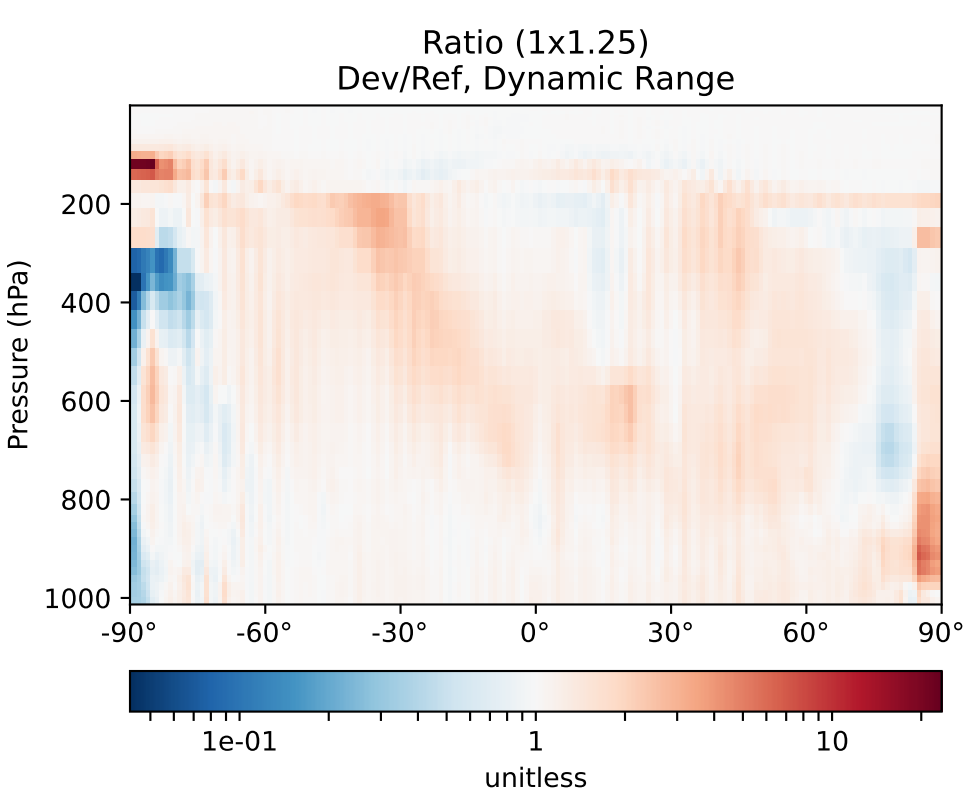


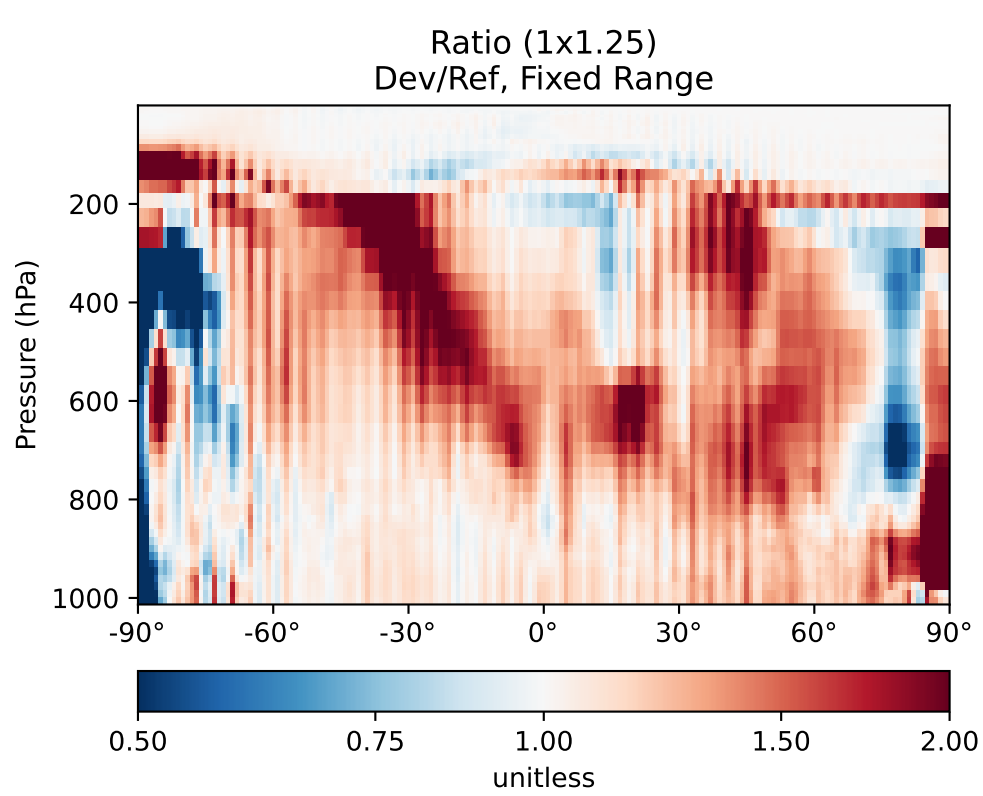


SpeciesConc_BrSALC, Zonal Mean

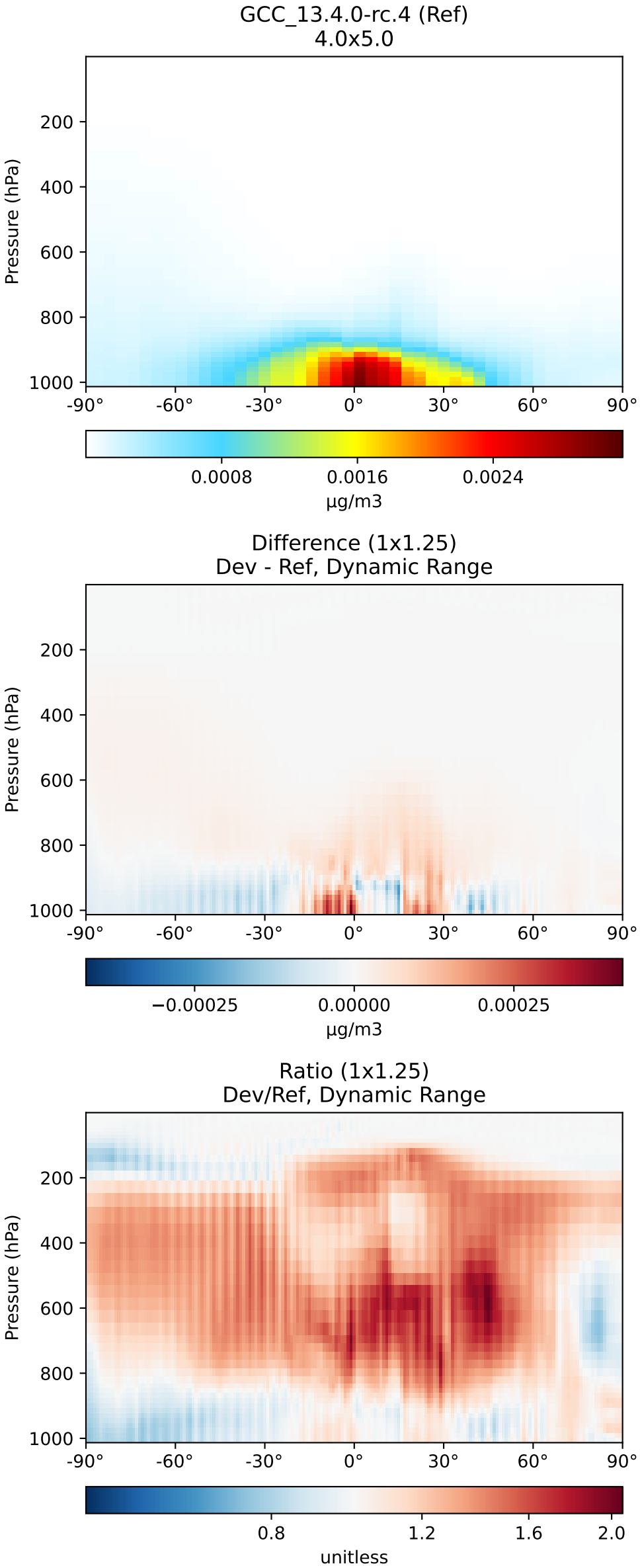


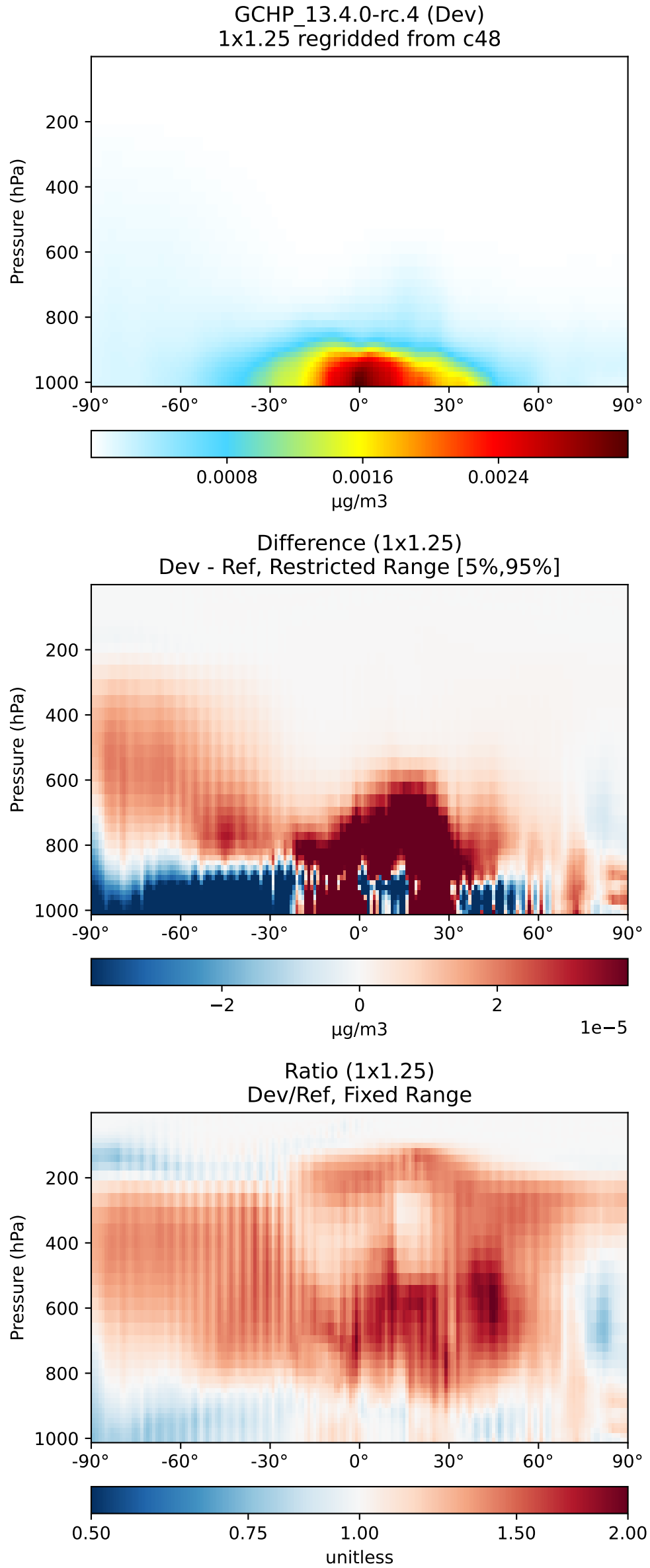






SpeciesConc_ISALA, Zonal Mean

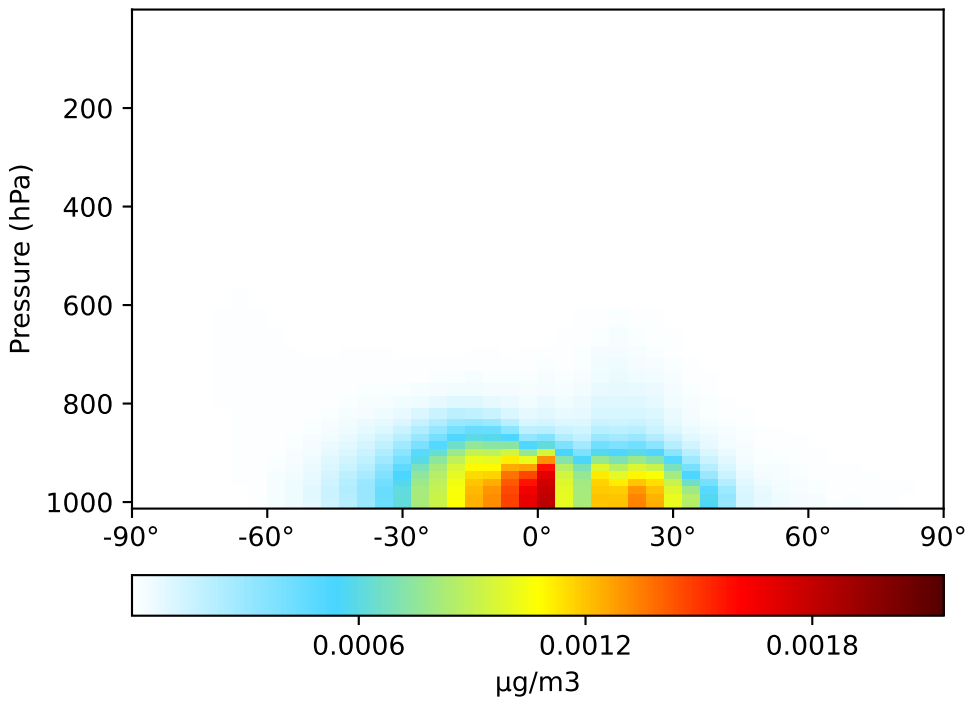


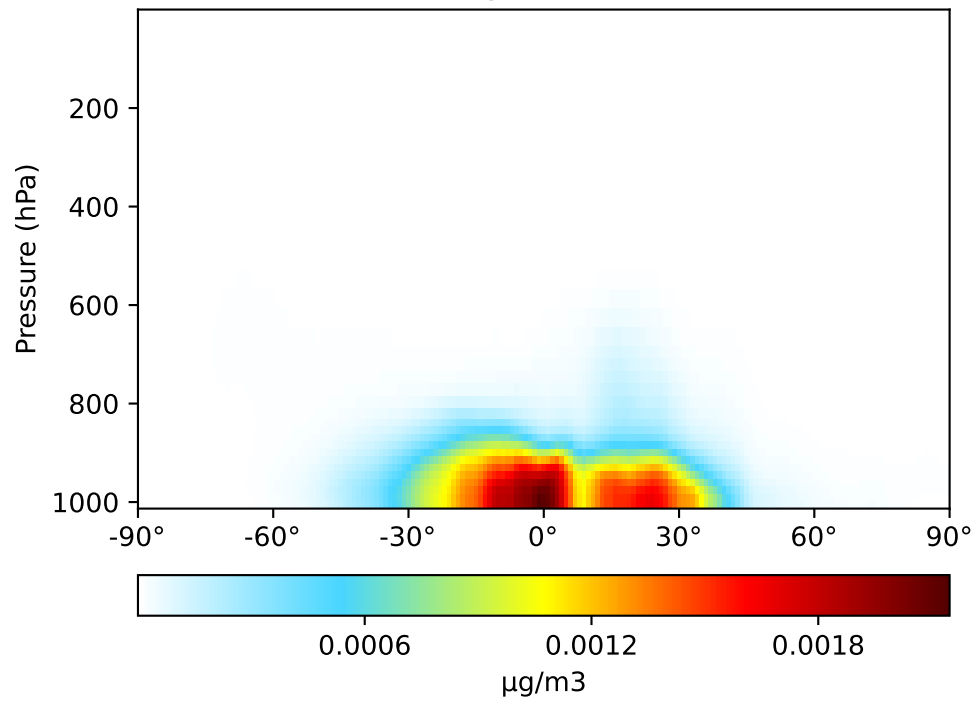


SpeciesConc_ISALC, Zonal Mean

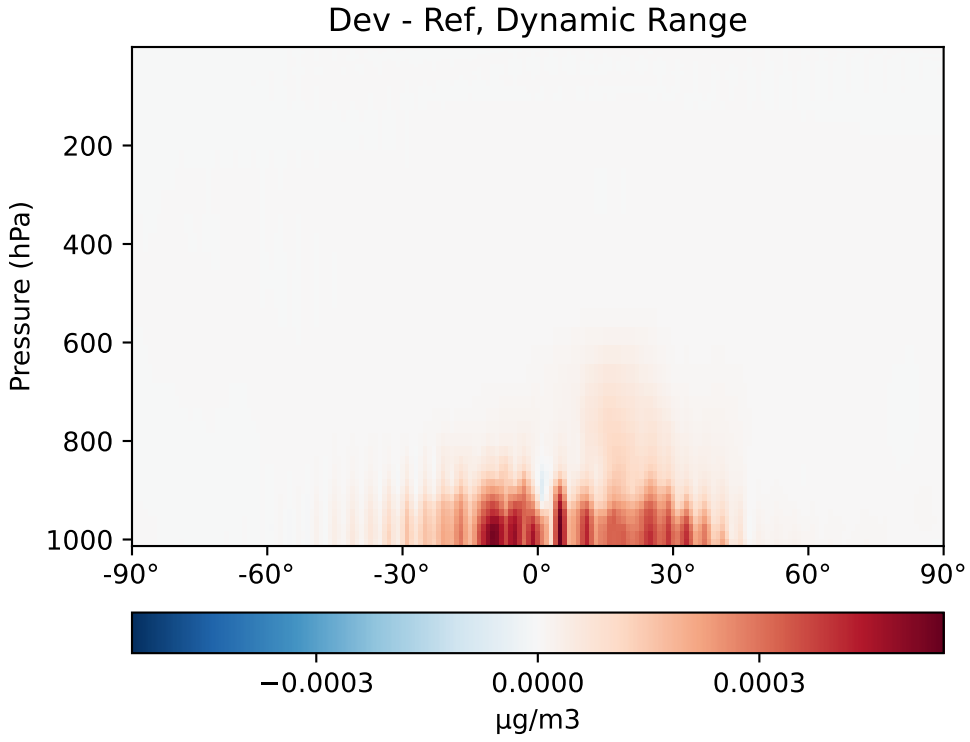
GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48

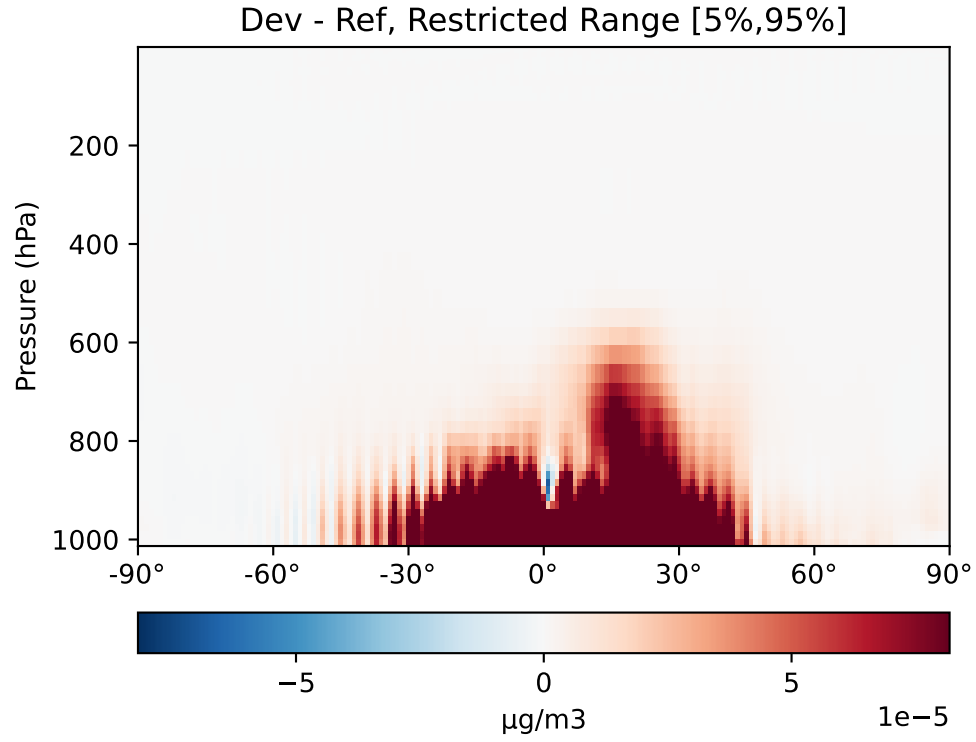




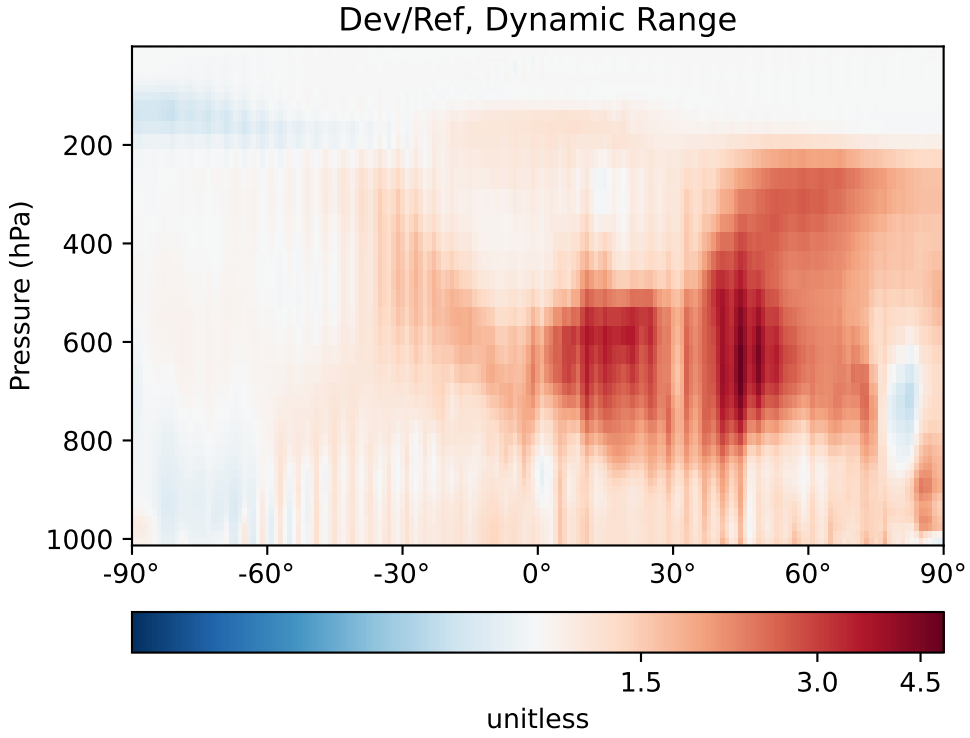
Difference (1x1.25)
Dev - Ref, Dynamic Range



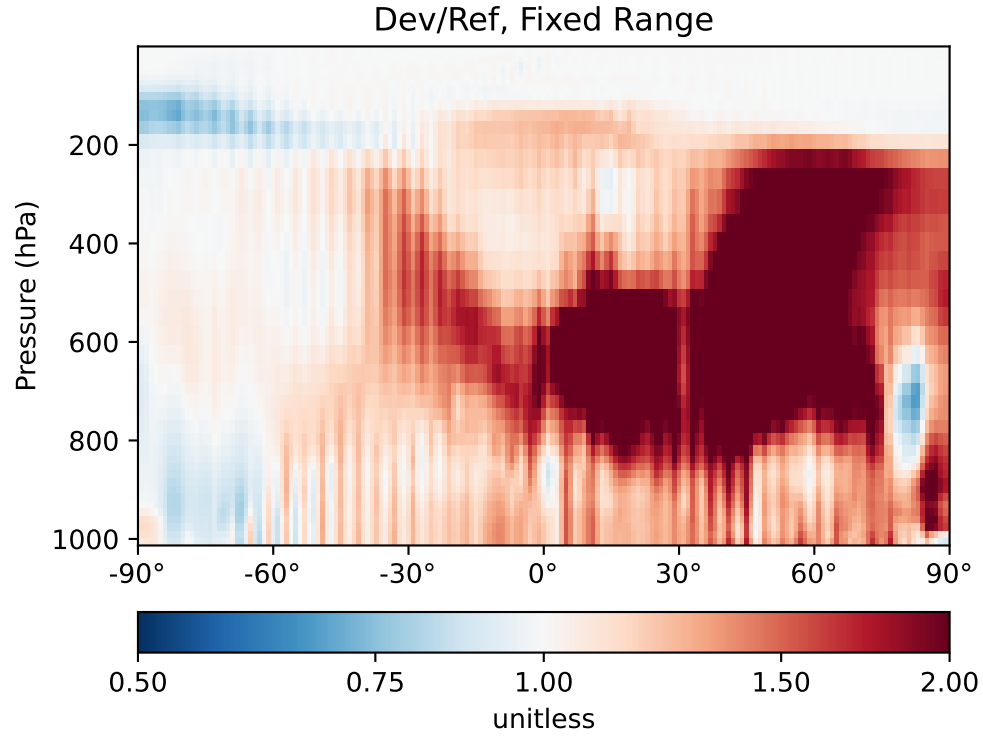
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



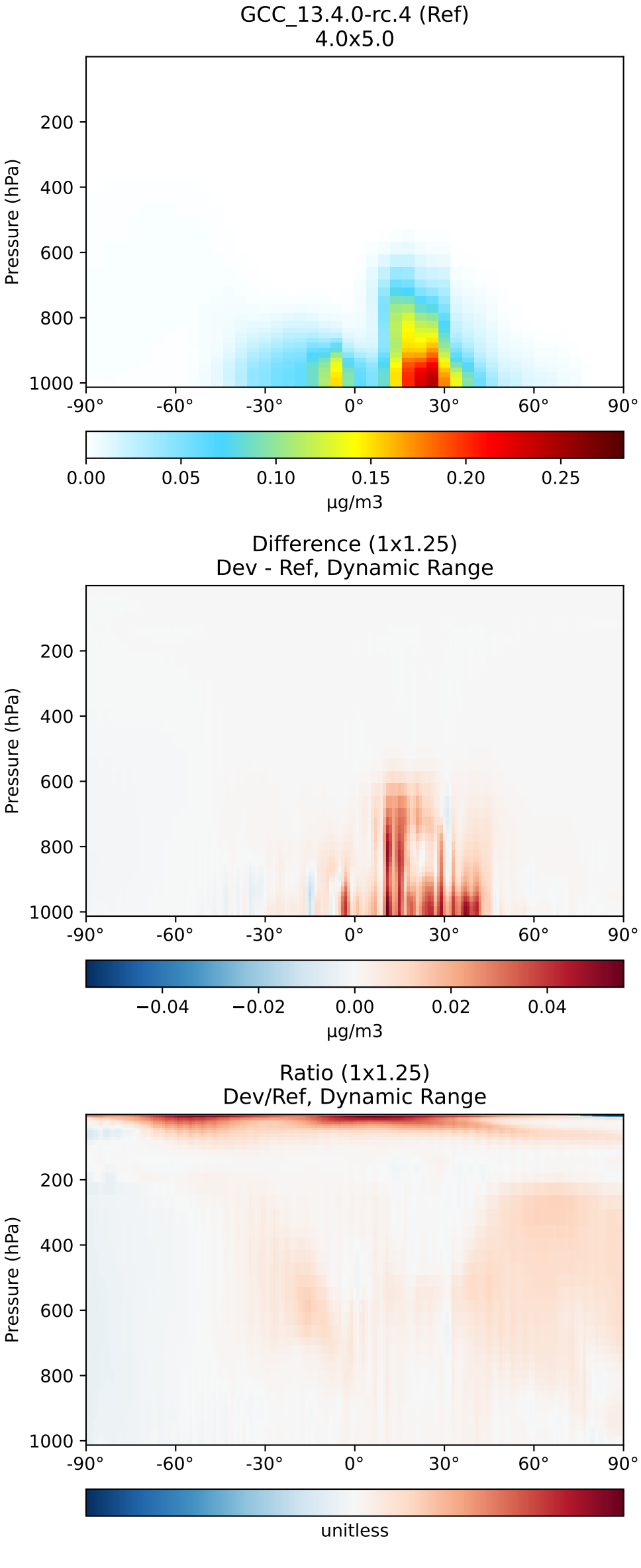
Ratio (1x1.25)
Dev/Ref, Dynamic Range

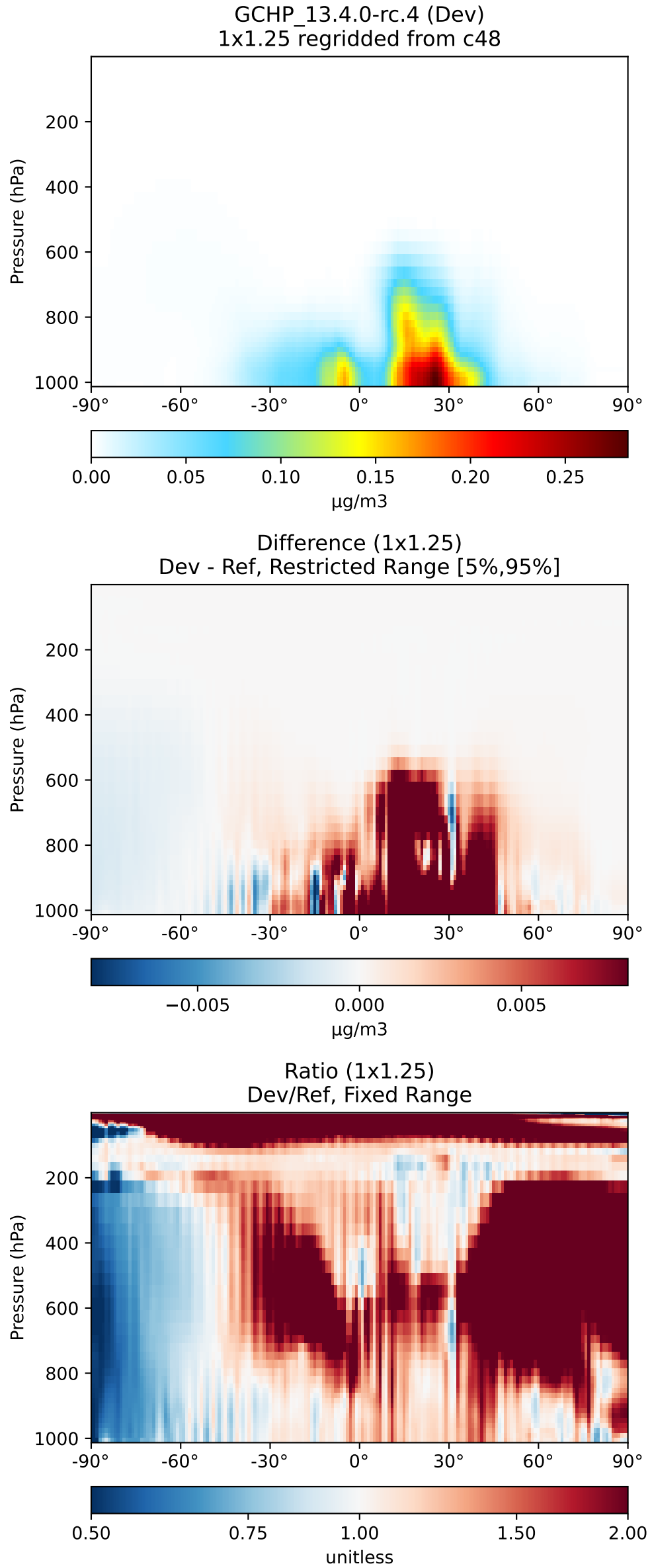


Ratio (1x1.25)
Dev/Ref, Fixed Range



SpeciesConc_NITs, Zonal Mean

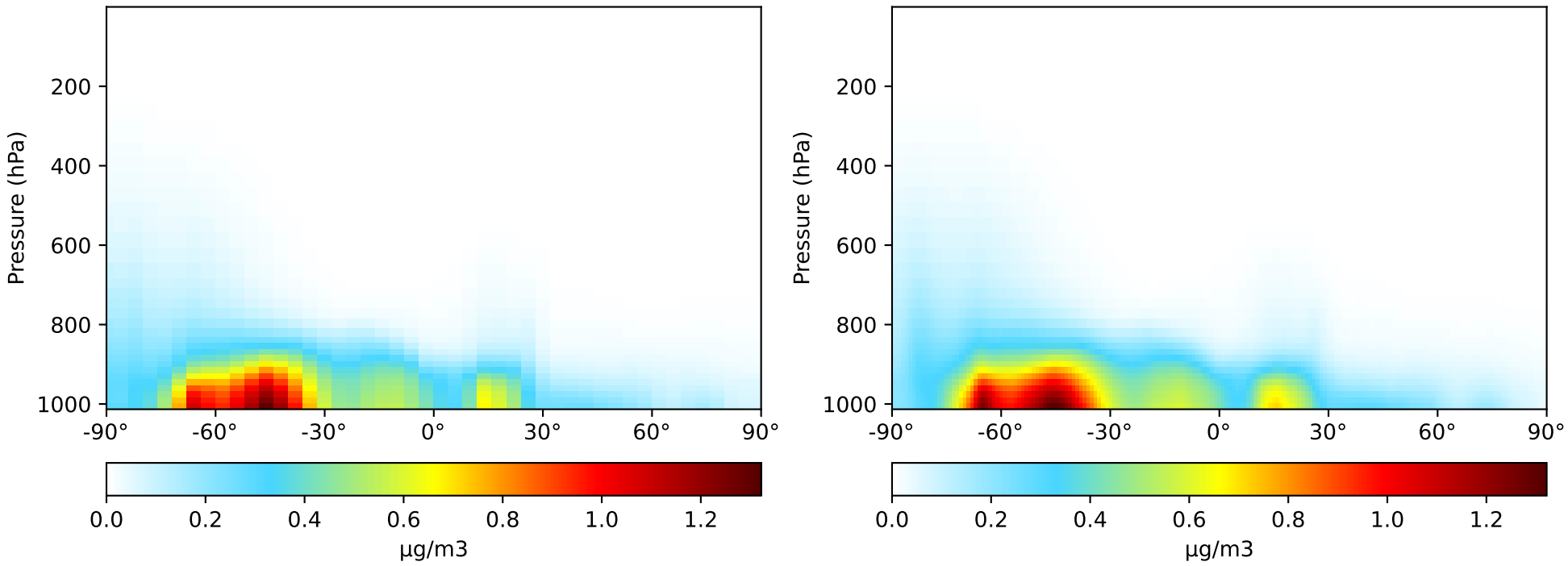




SpeciesConc_SALA, Zonal Mean

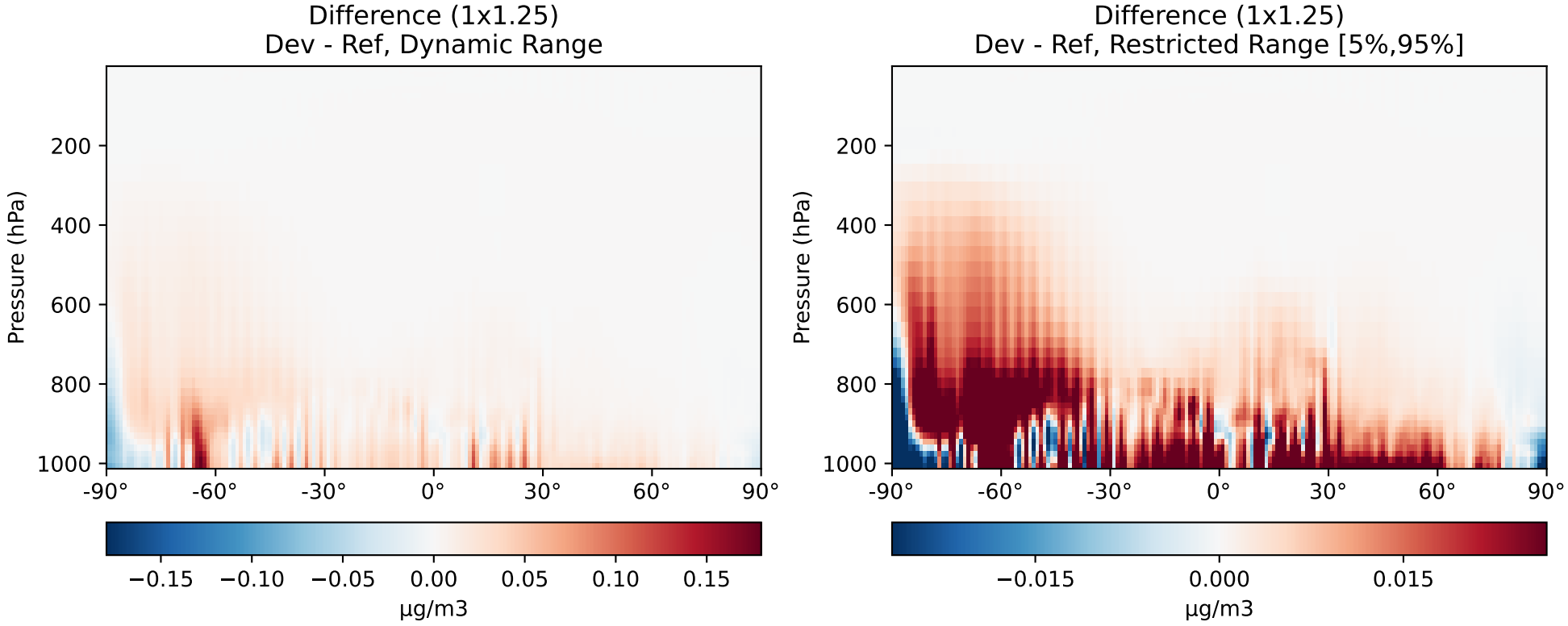
GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48



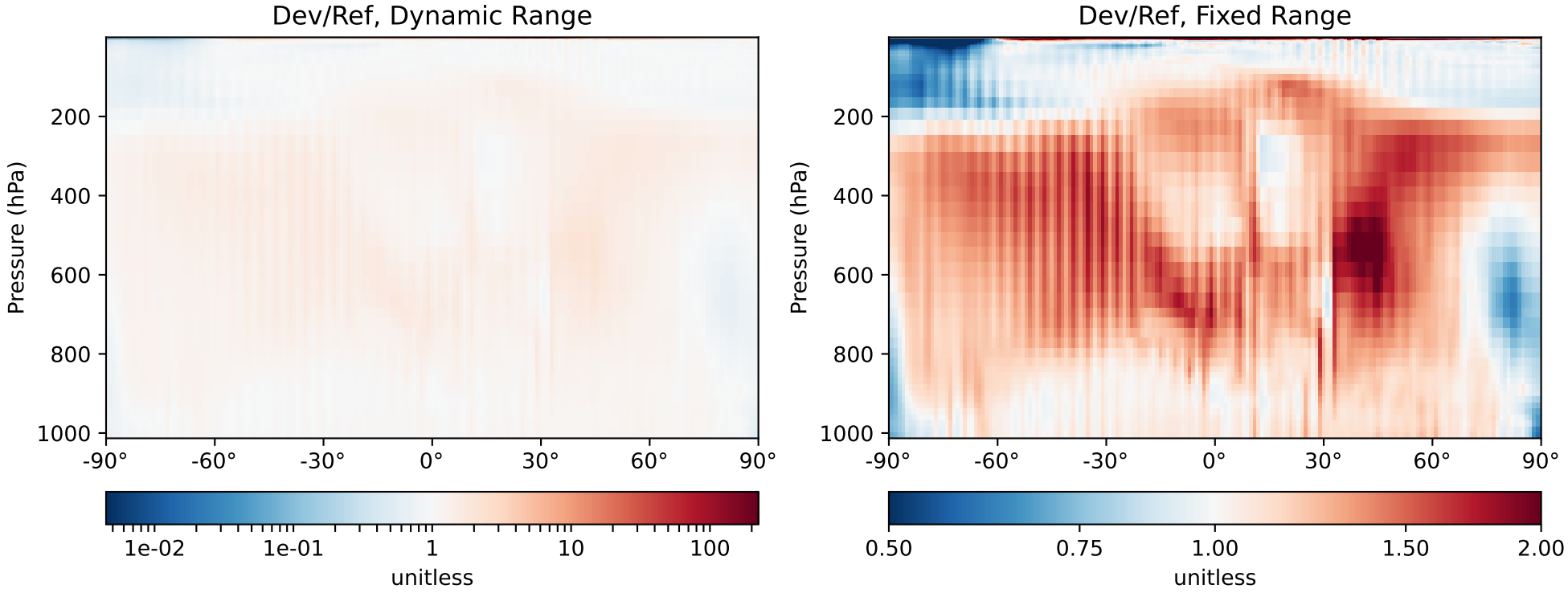
Difference (1x1.25)
Dev - Ref, Dynamic Range

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



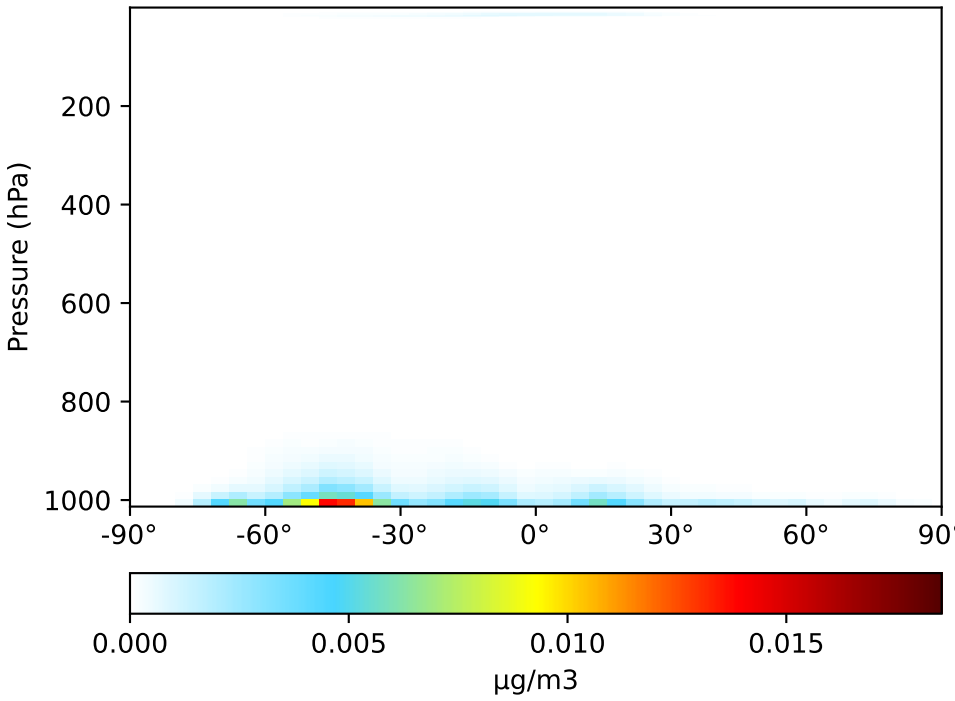
Ratio (1x1.25)
Dev/Ref, Dynamic Range

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

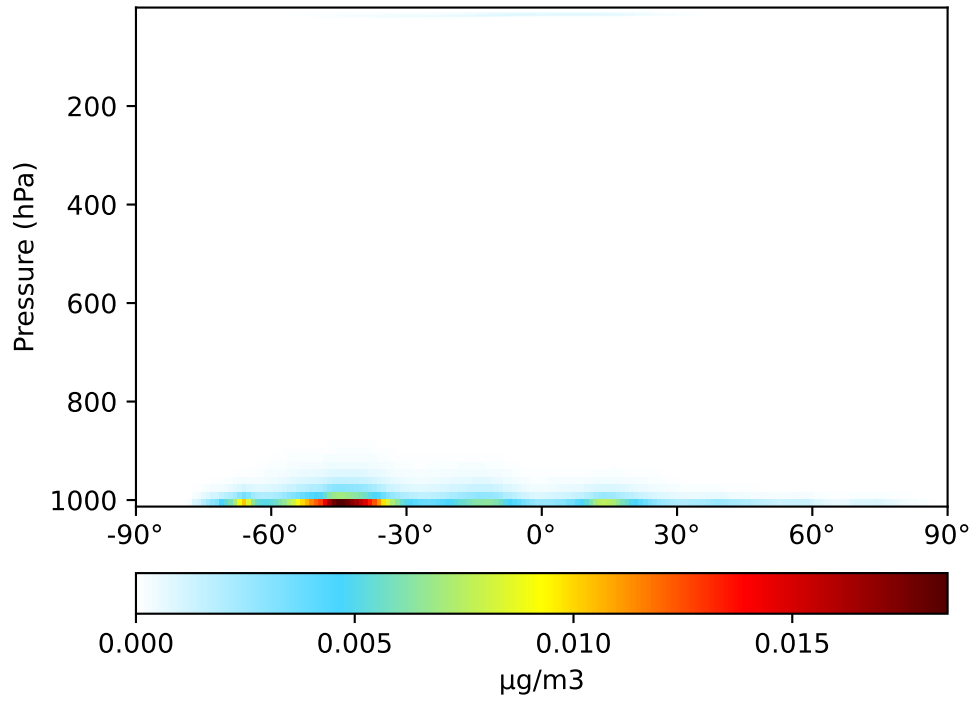


SpeciesConc_SALAAL, Zonal Mean

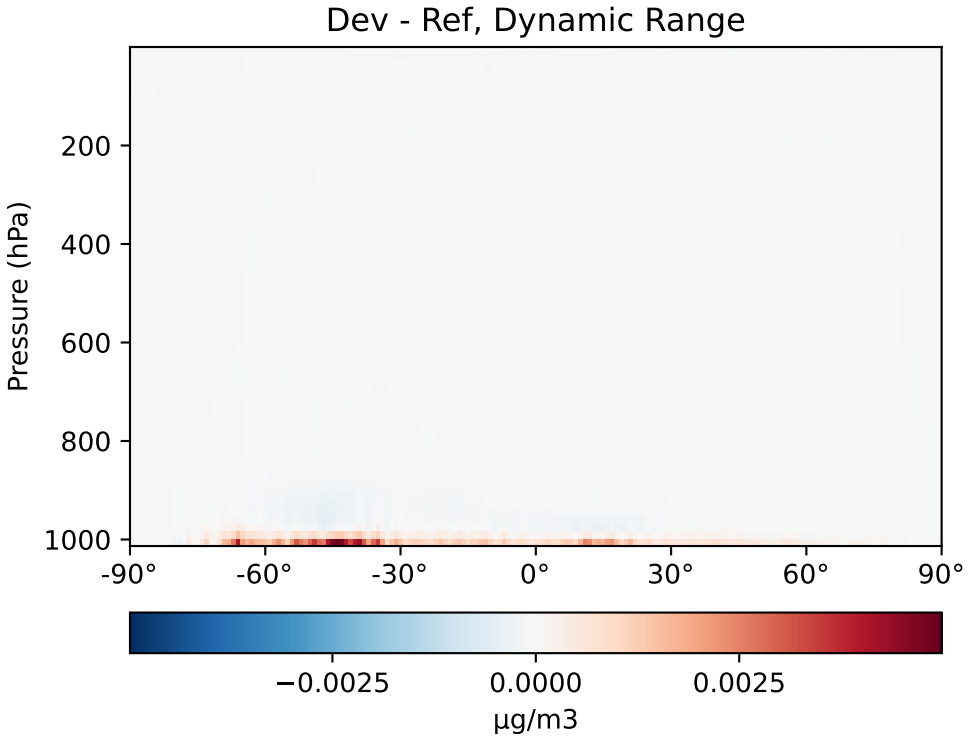
GCC_13.4.0-rc.4 (Ref)
4.0x5.0



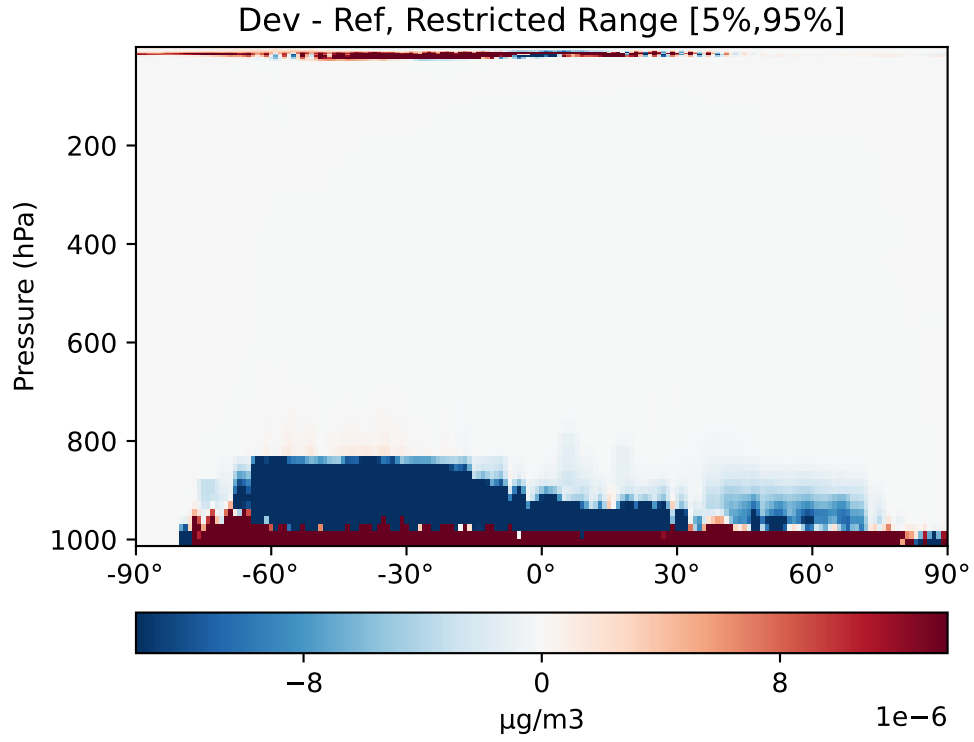
GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48



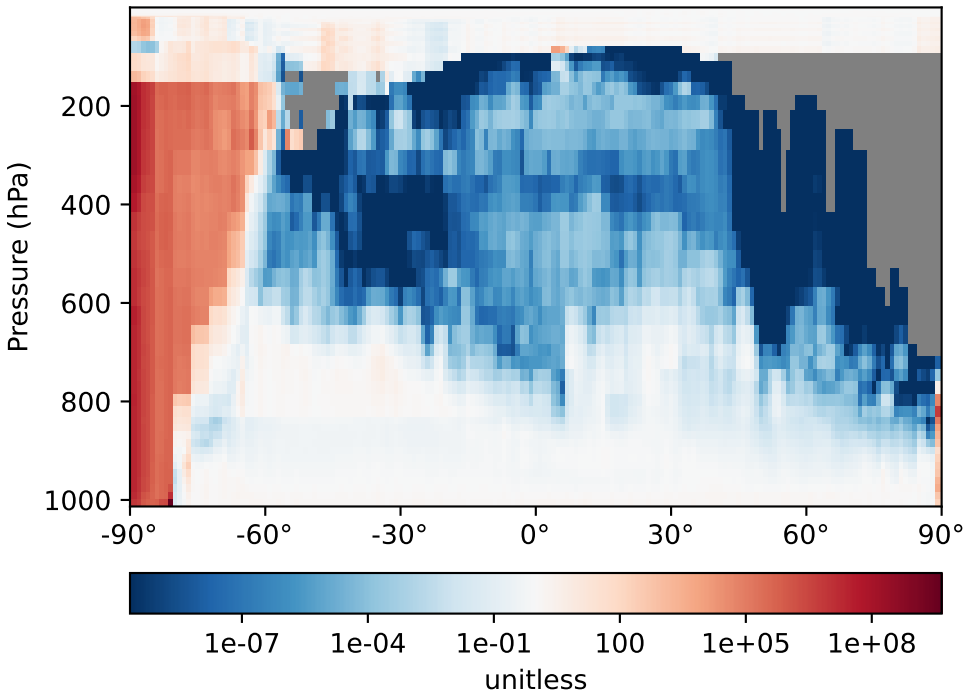
Difference (1x1.25)
Dev - Ref, Dynamic Range



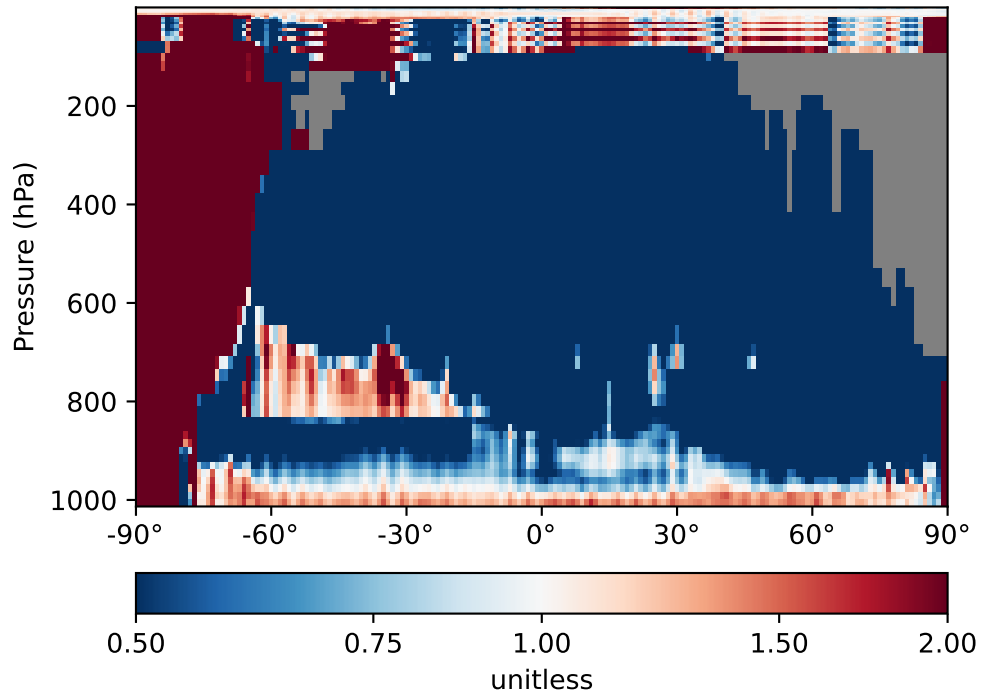
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



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



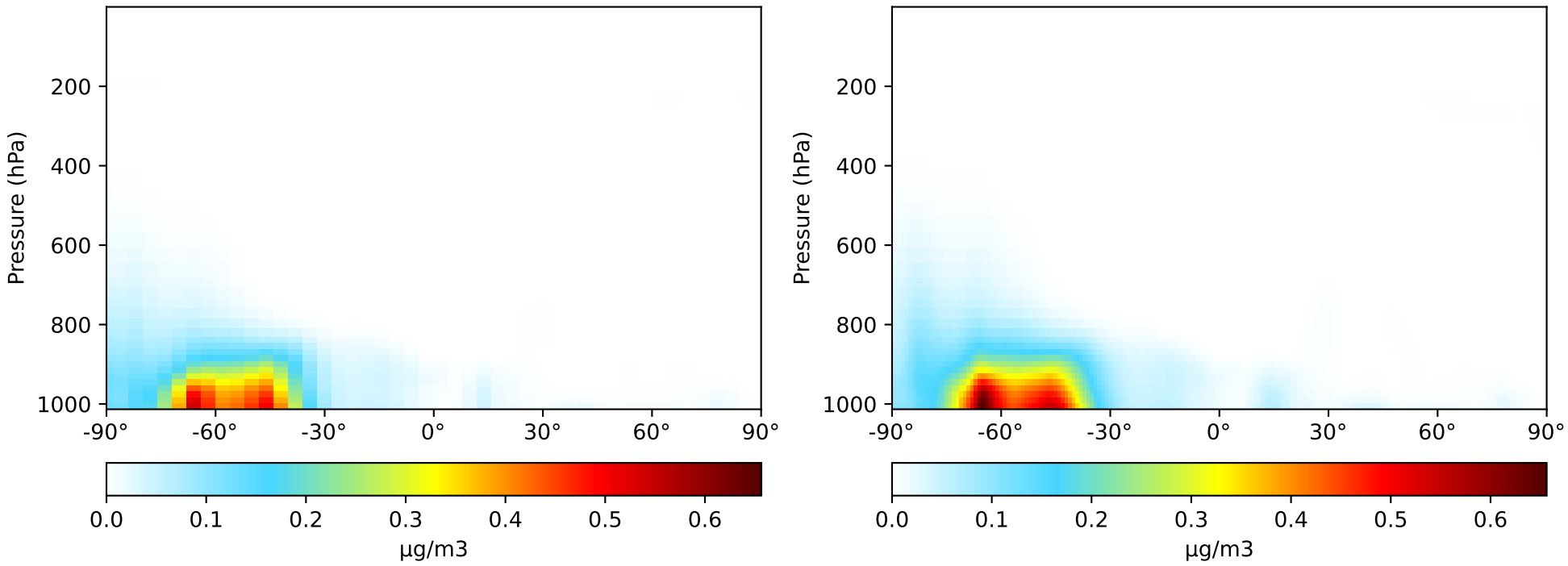
Ratio (1x1.25)
Dev/Ref, Fixed Range



SpeciesConc_SALACL, Zonal Mean

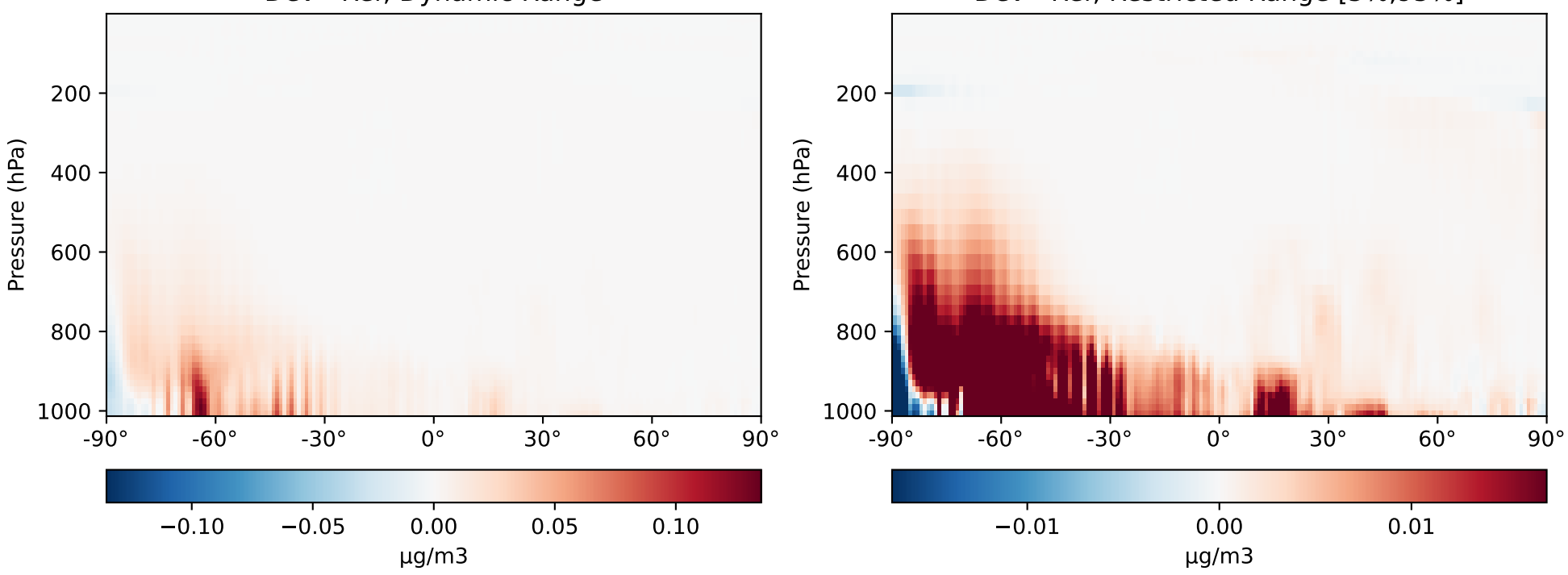
GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48



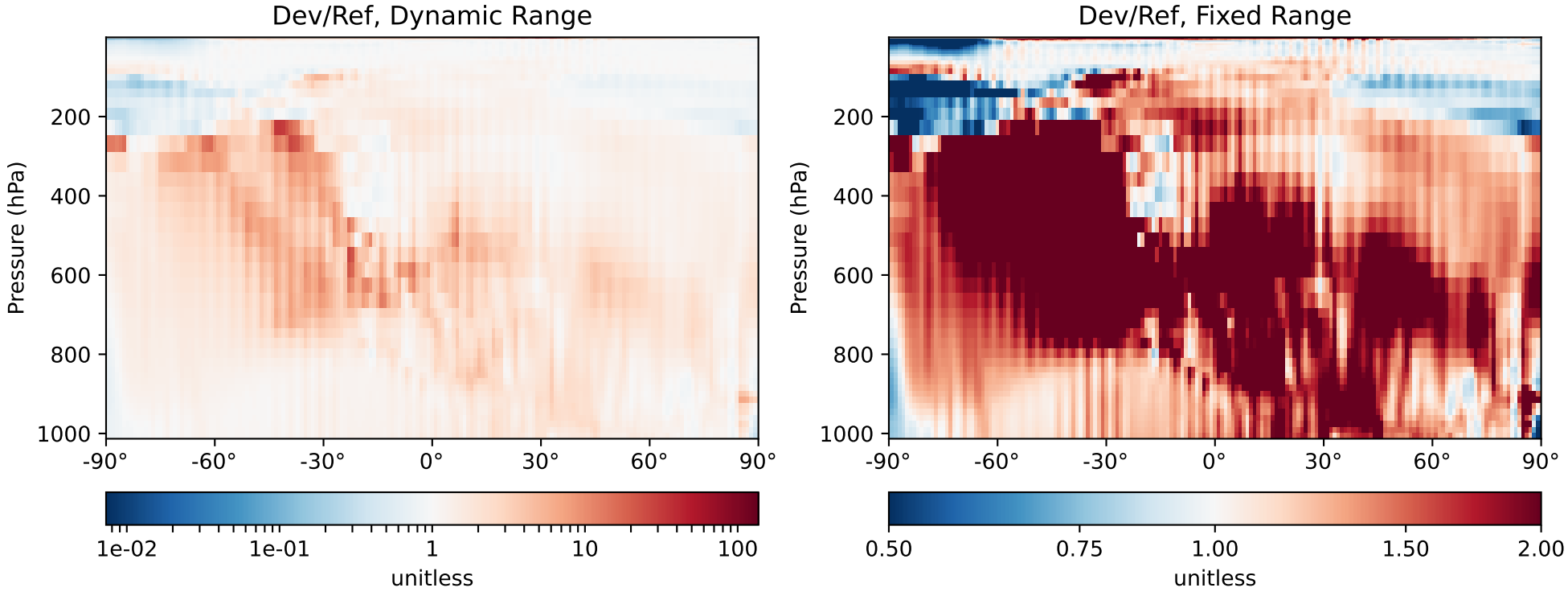
Difference (1x1.25)
Dev - Ref, Dynamic Range

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



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

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



SpeciesConc_SALC, Zonal Mean

GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48

Pressure (hPa)

200
400
600
800
1000

-90° -60° -30° 0° 30° 60° 90°

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5

µg/m3

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

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

−3 −2 −1 0 1 2 3

−0.4 −0.2 0.0 0.2 0.4

µg/m3

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

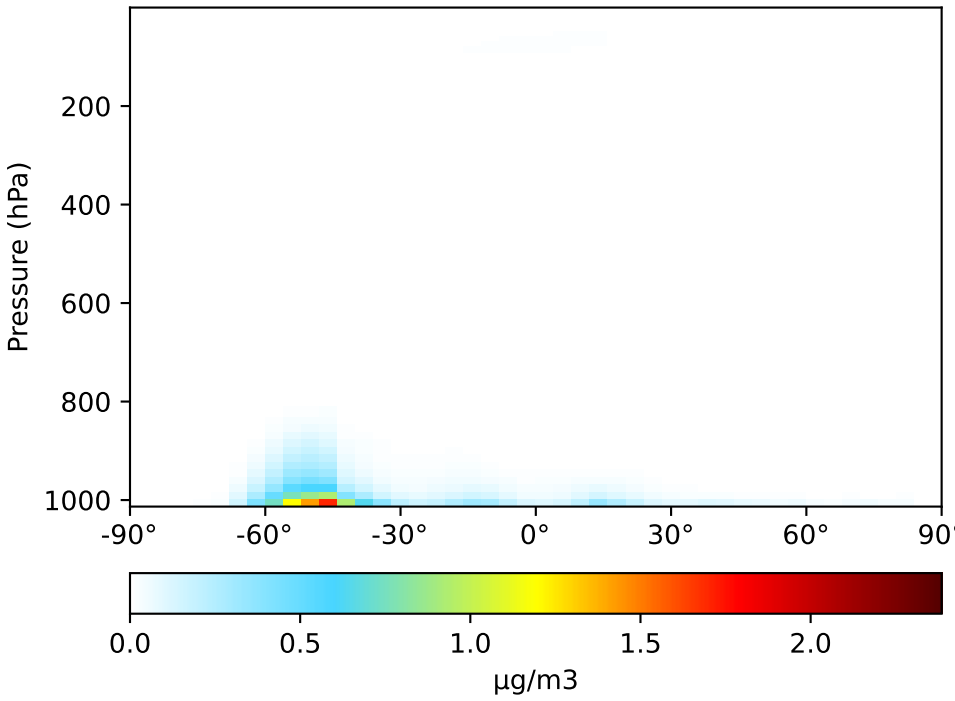
Ratio (1x1.25)
Dev/Ref, Fixed Range

0.50 0.75 1.00 1.50 2.00

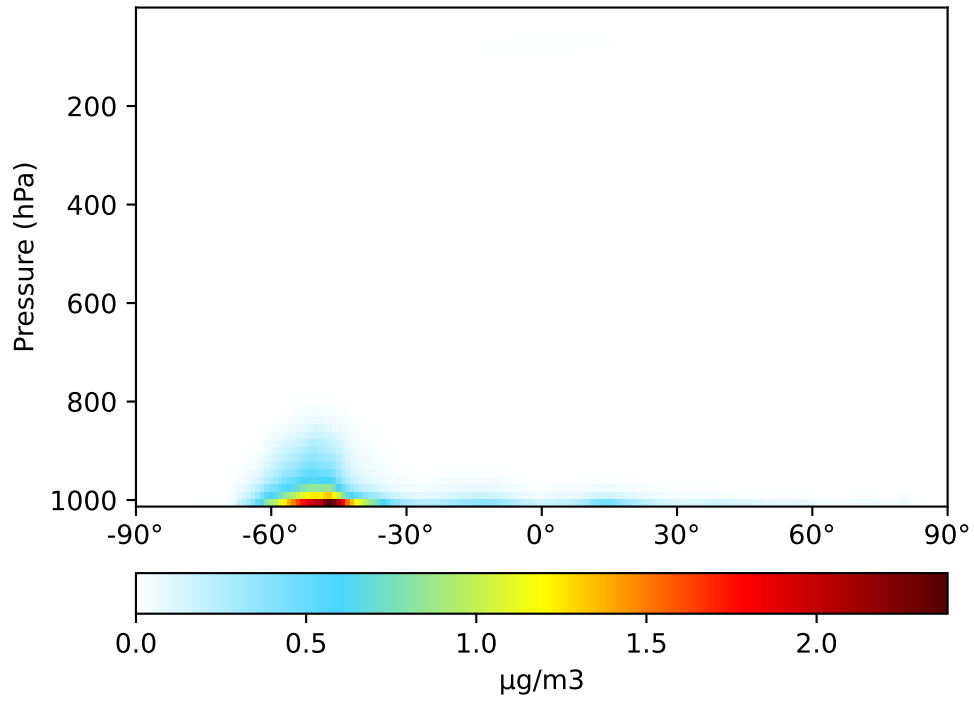
unitless

SpeciesConc_SALCAL, Zonal Mean

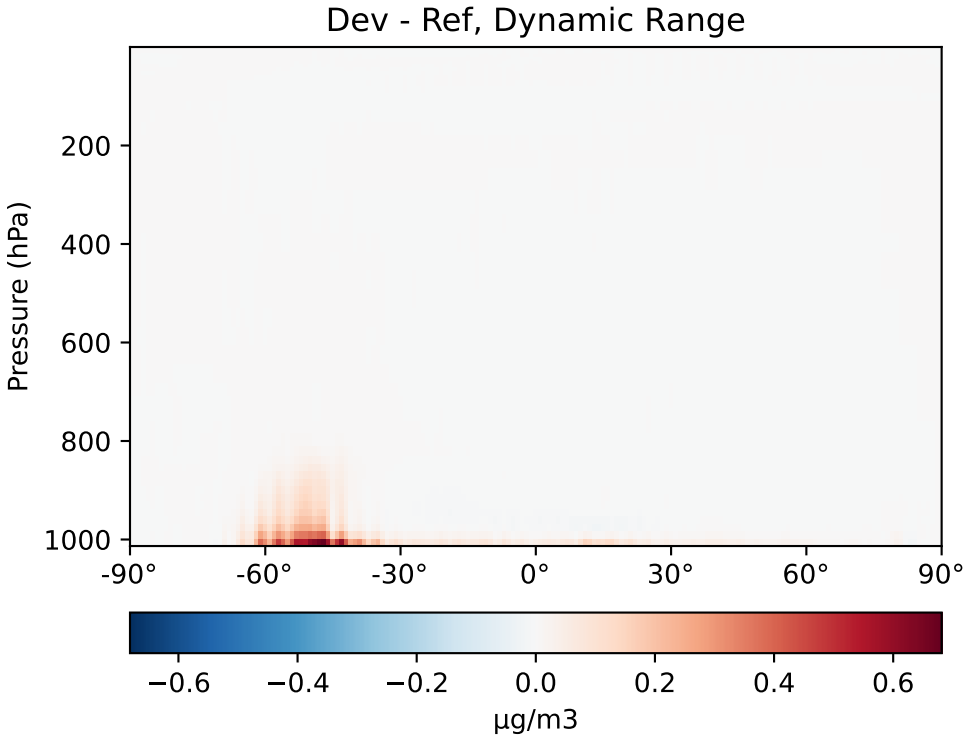
GCC_13.4.0-rc.4 (Ref)
4.0x5.0



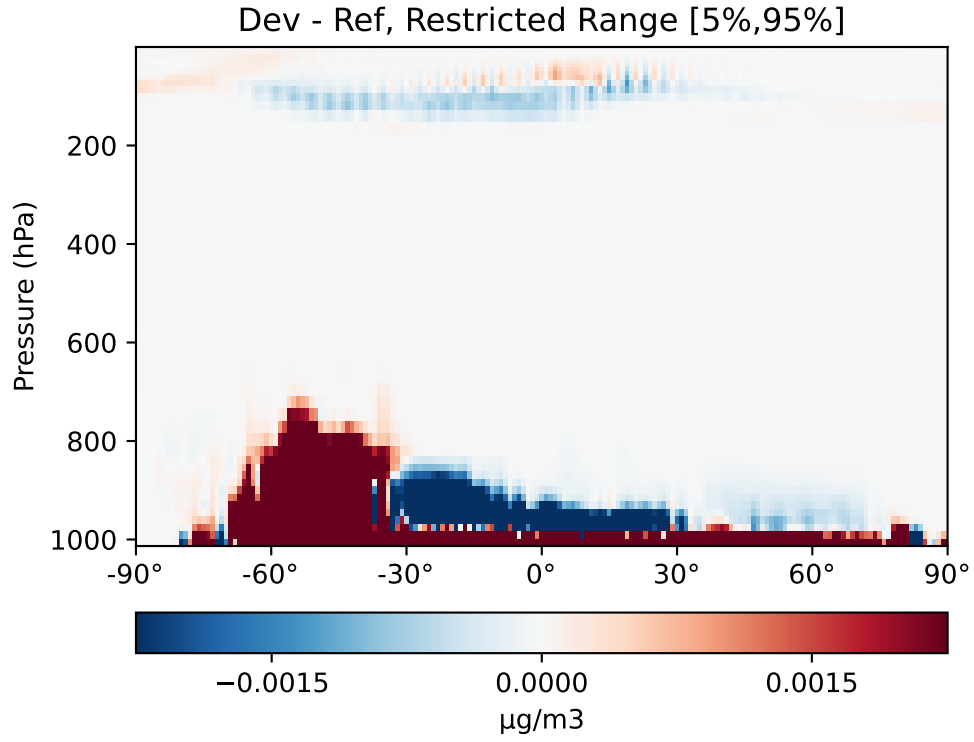
GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48



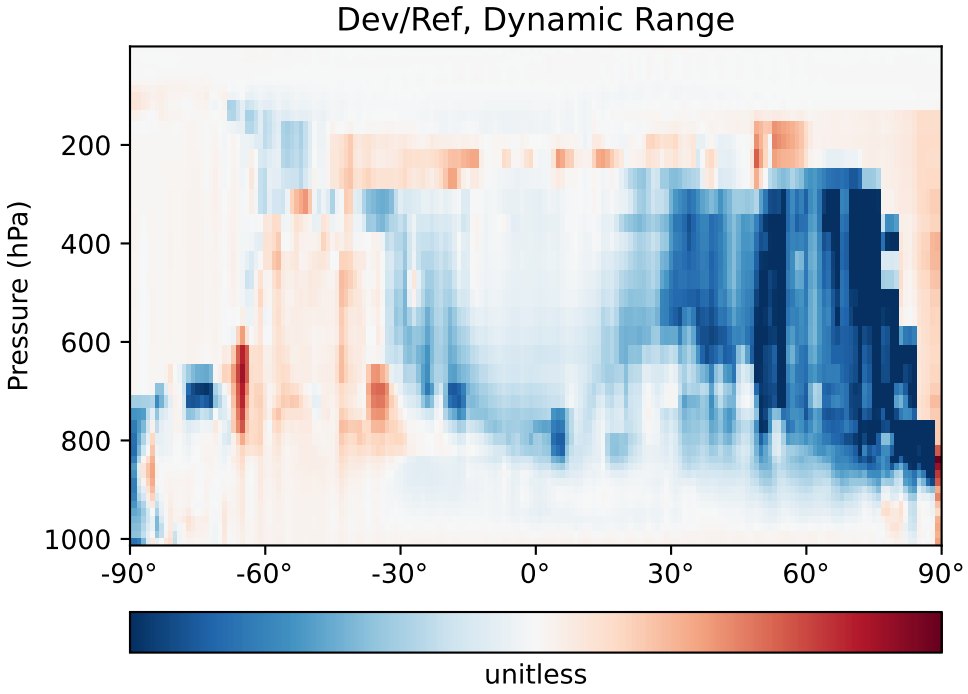
Difference (1x1.25)
Dev - Ref, Dynamic Range



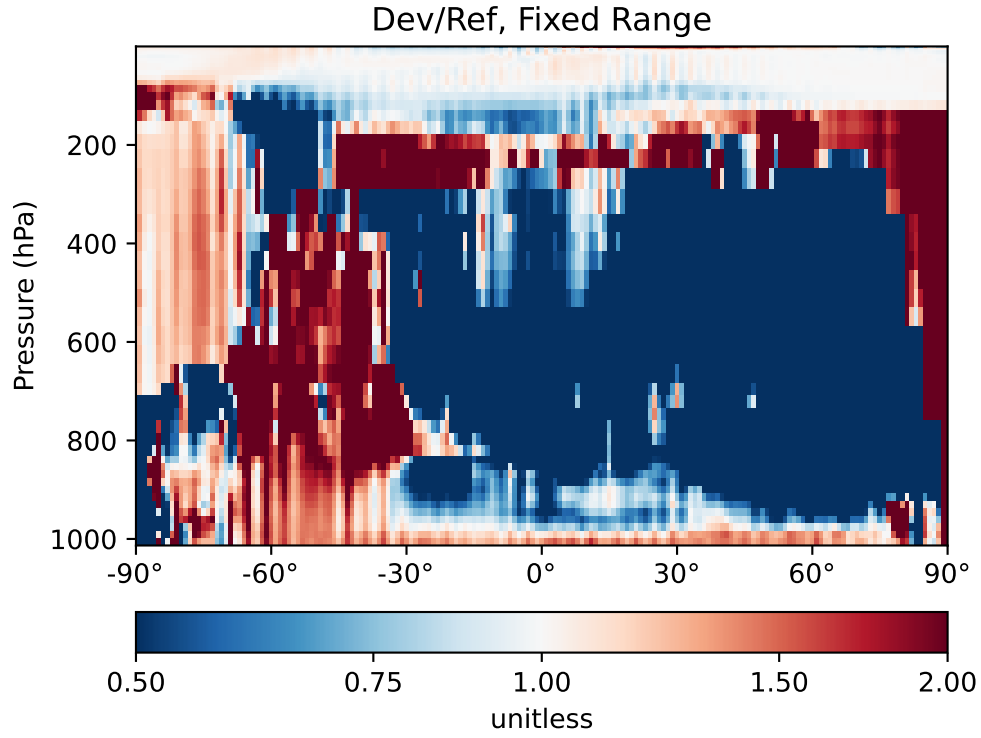
Difference (1x1.25)
Dev - Ref, Restricted Range [5%,95%]



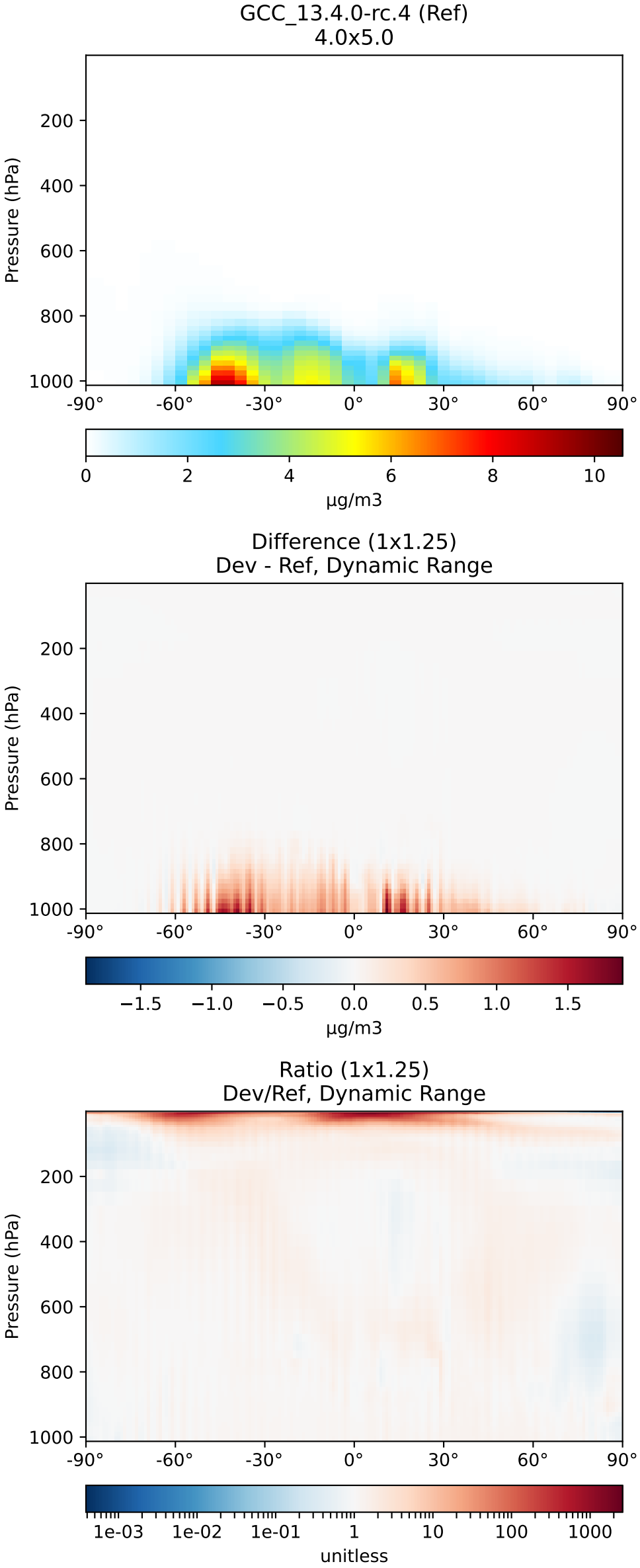
Ratio (1x1.25)
Dev/Ref, Dynamic Range

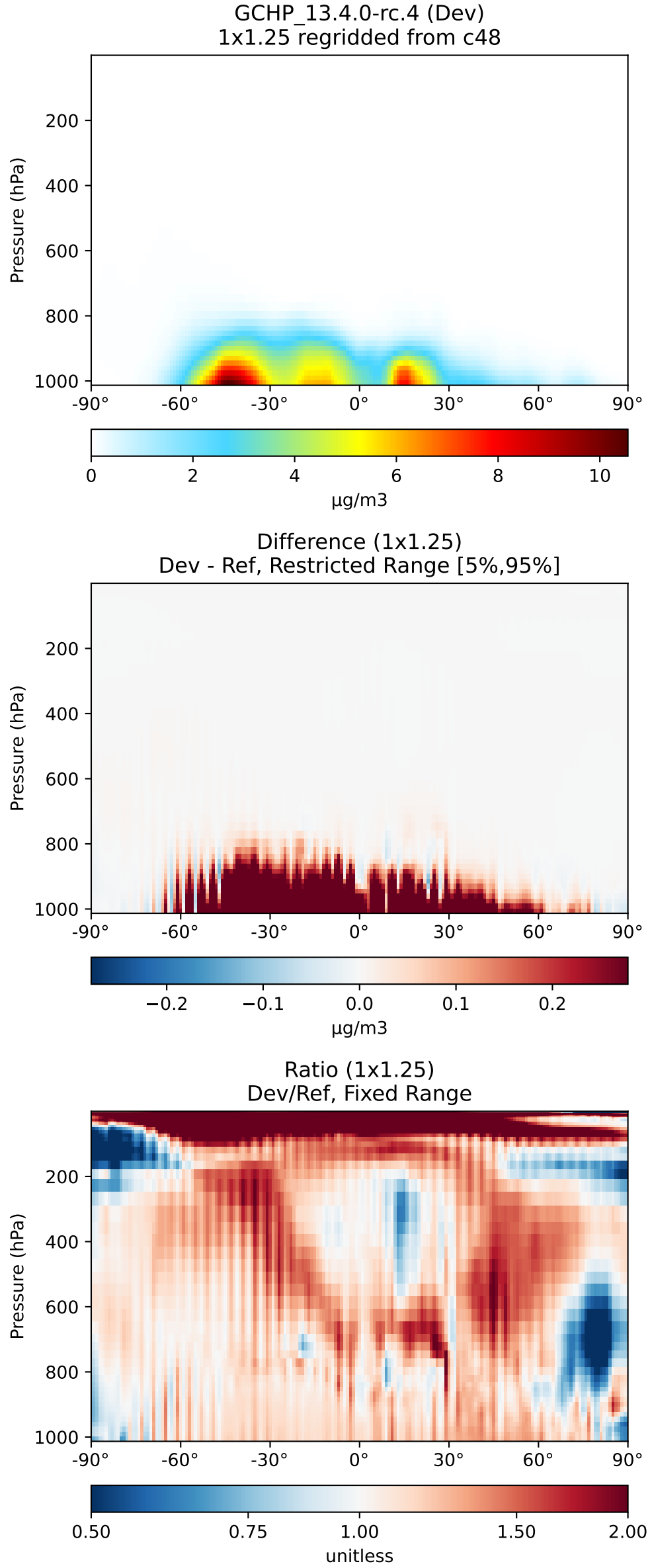


Ratio (1x1.25)
Dev/Ref, Fixed Range

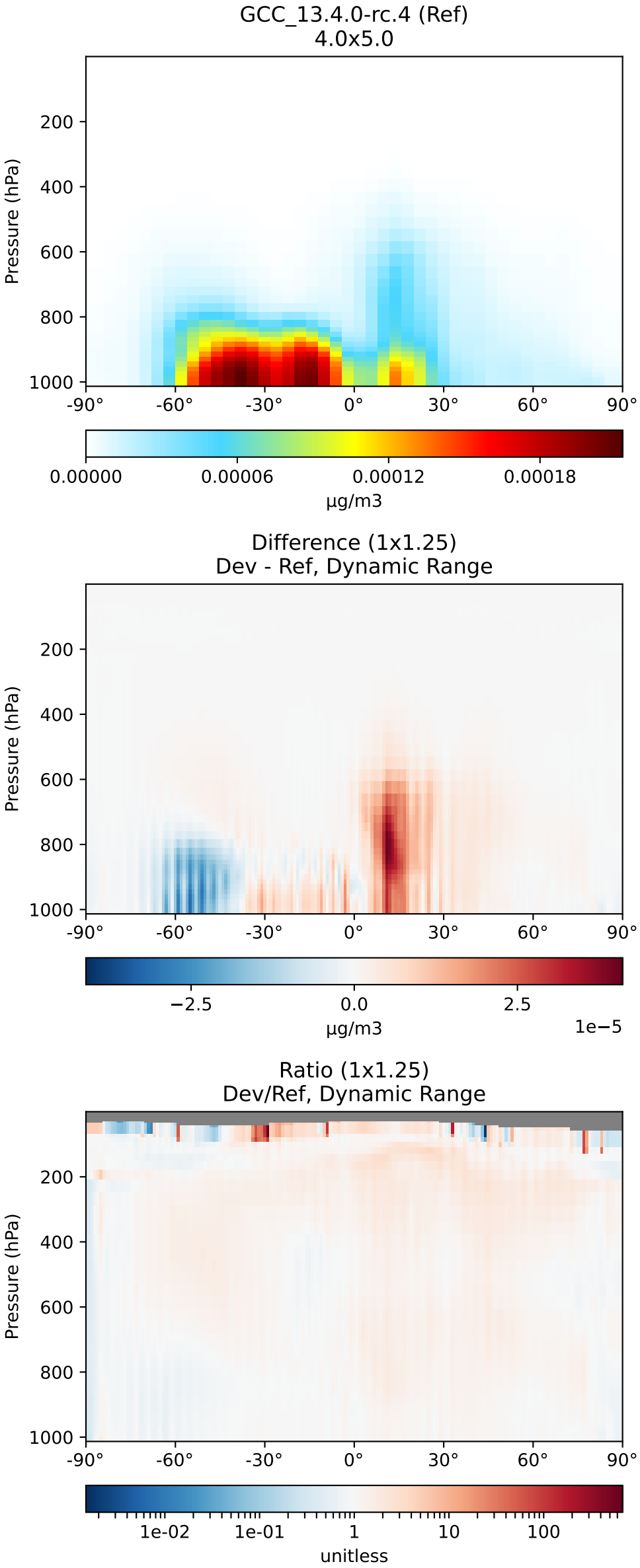


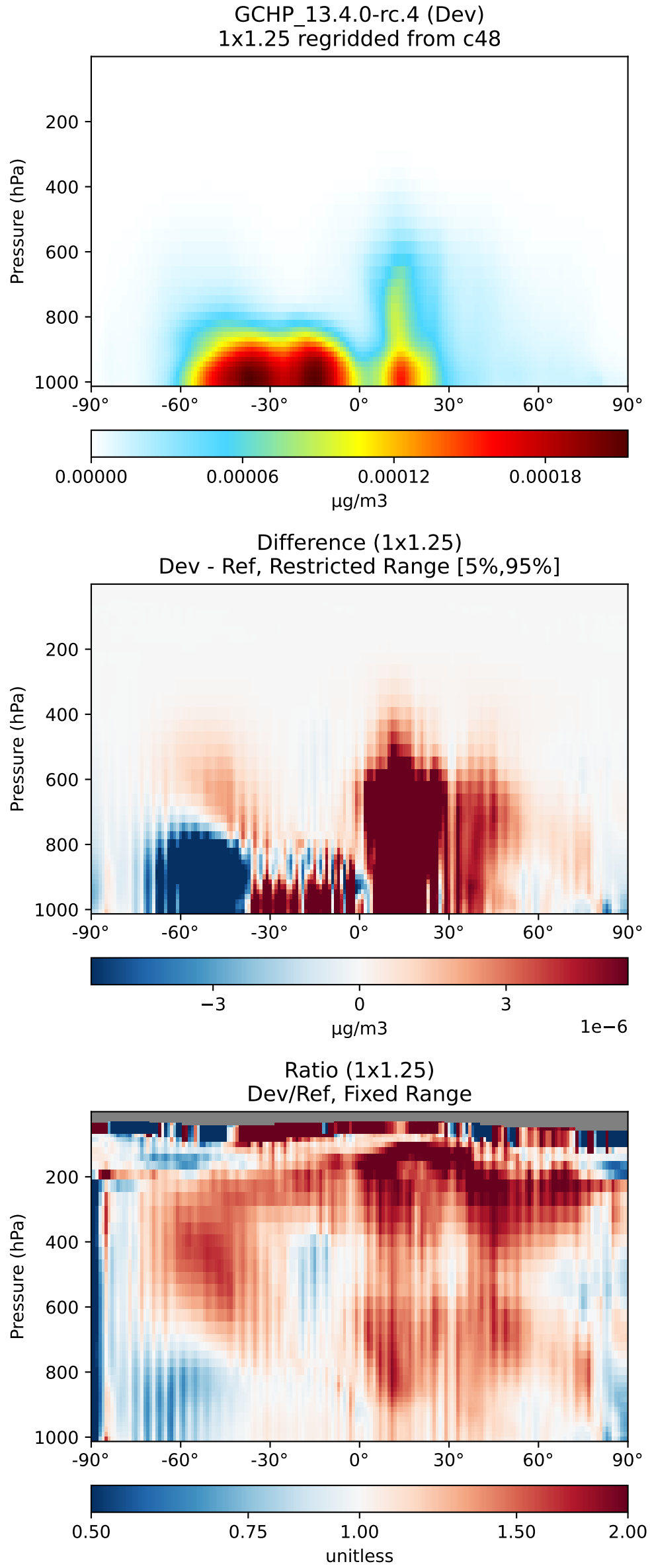
SpeciesConc_SALCCL, Zonal Mean





SpeciesConc_SO4s, Zonal Mean

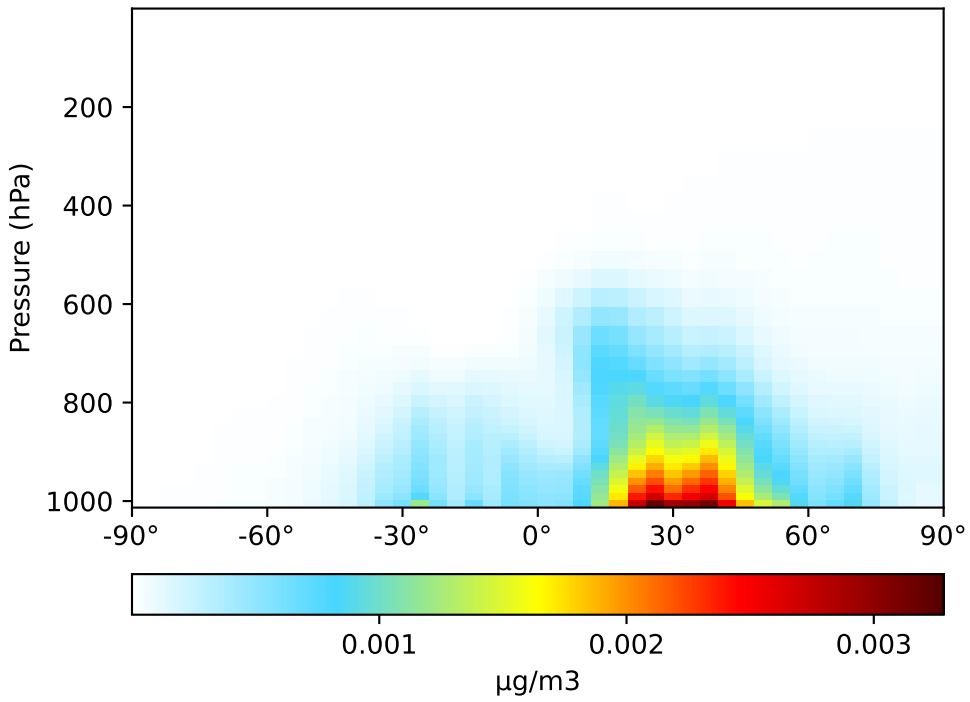


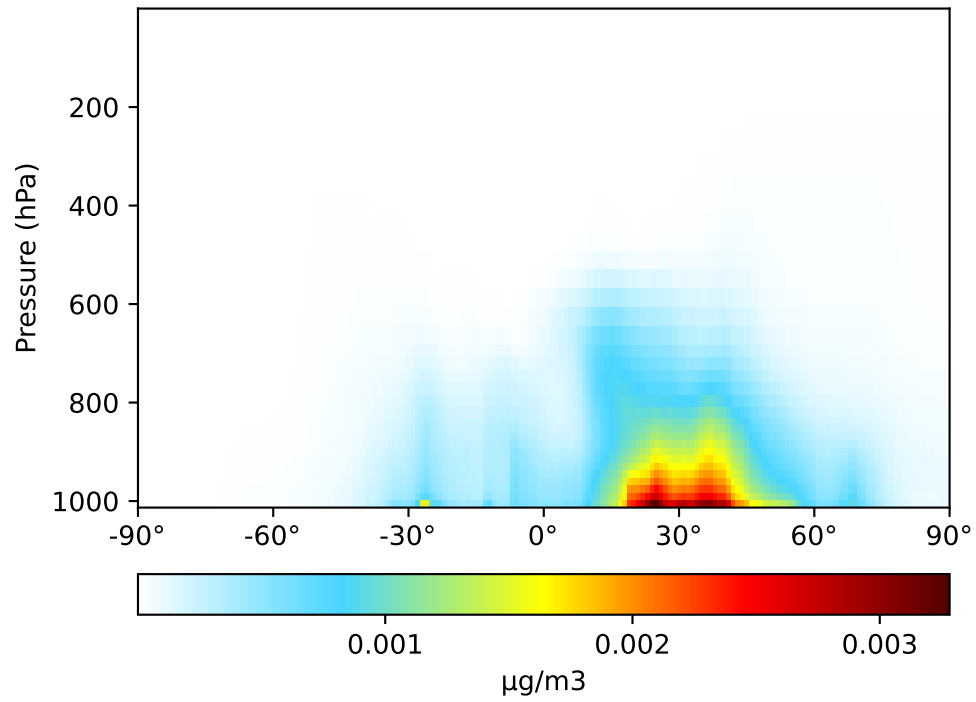


SpeciesConc_pFe, Zonal Mean

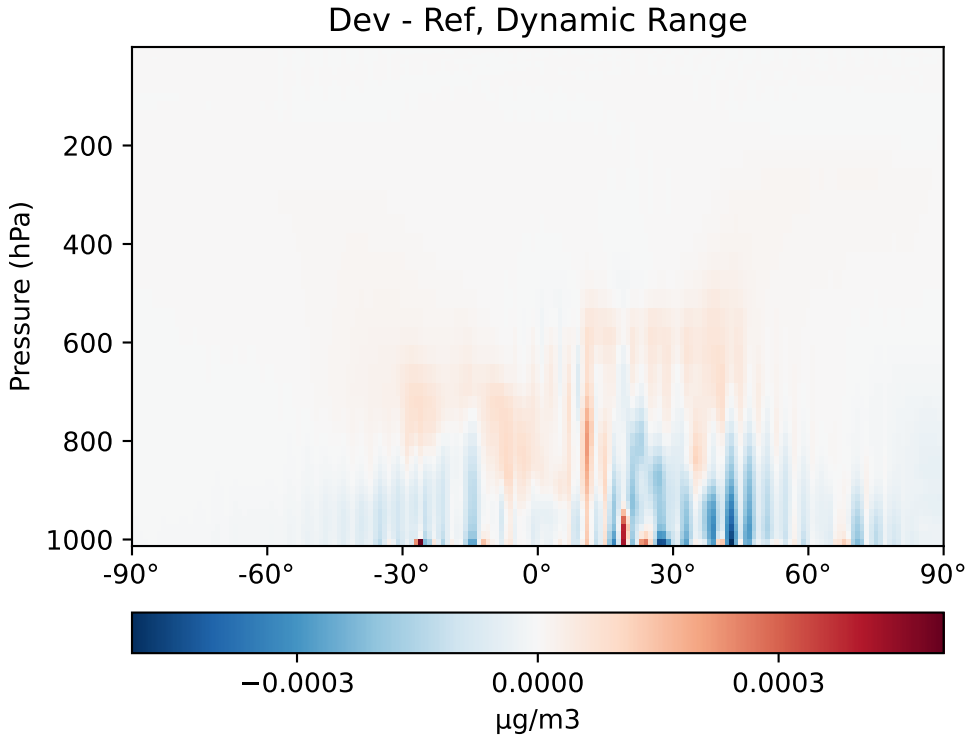
GCC_13.4.0-rc.4 (Ref)
4.0x5.0

GCHP_13.4.0-rc.4 (Dev)
1x1.25 regridded from c48

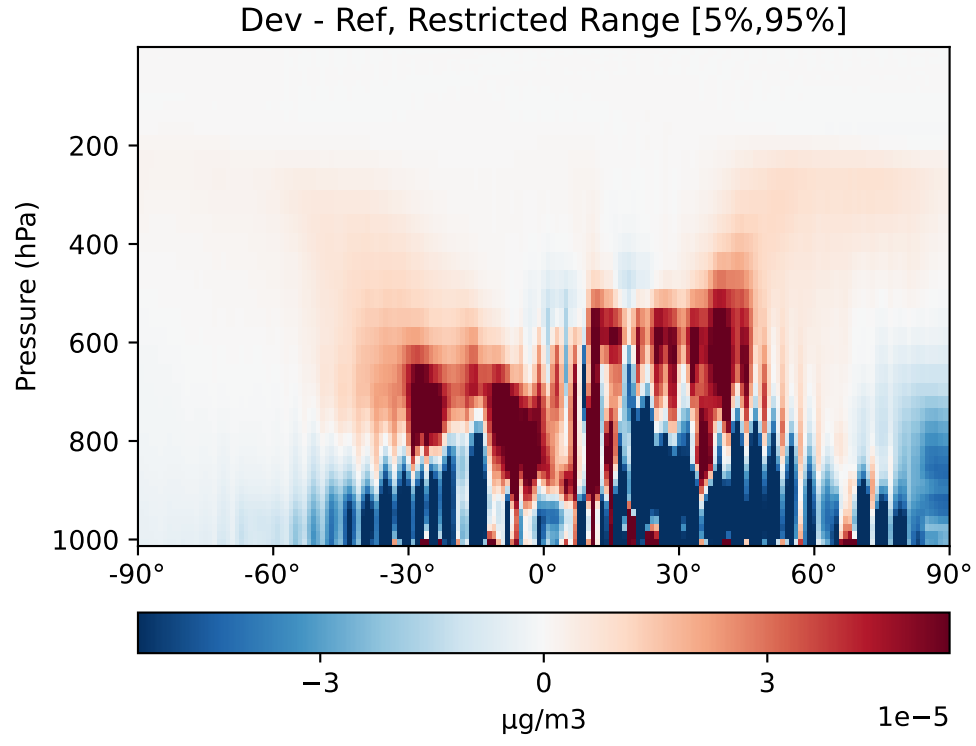




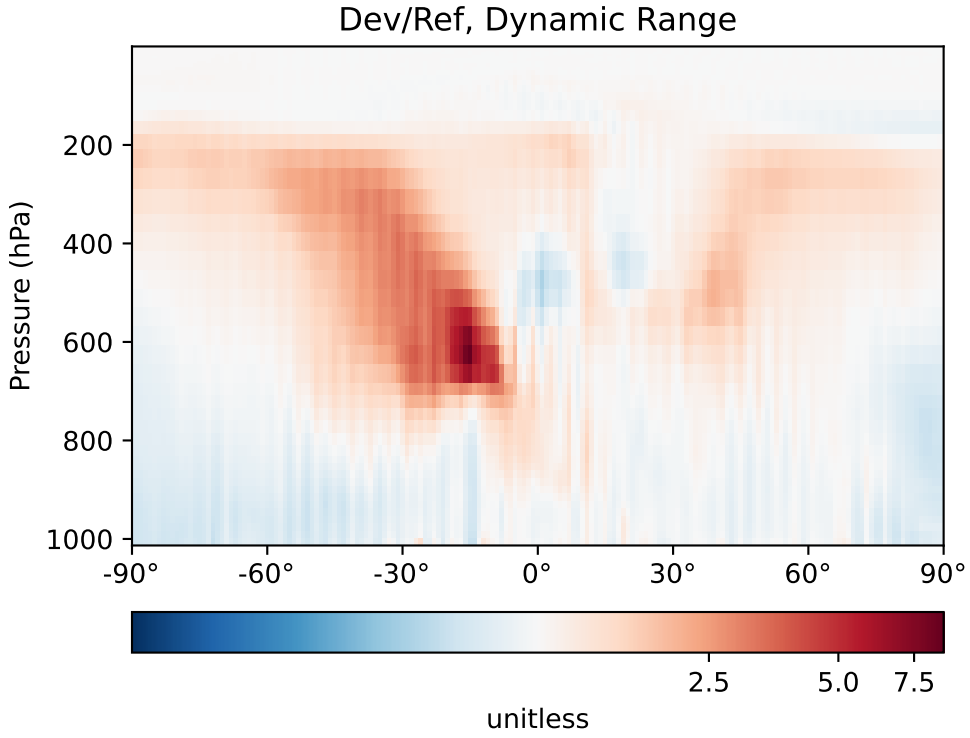
Difference (1x1.25)
Dev - Ref, Dynamic Range



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



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



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

