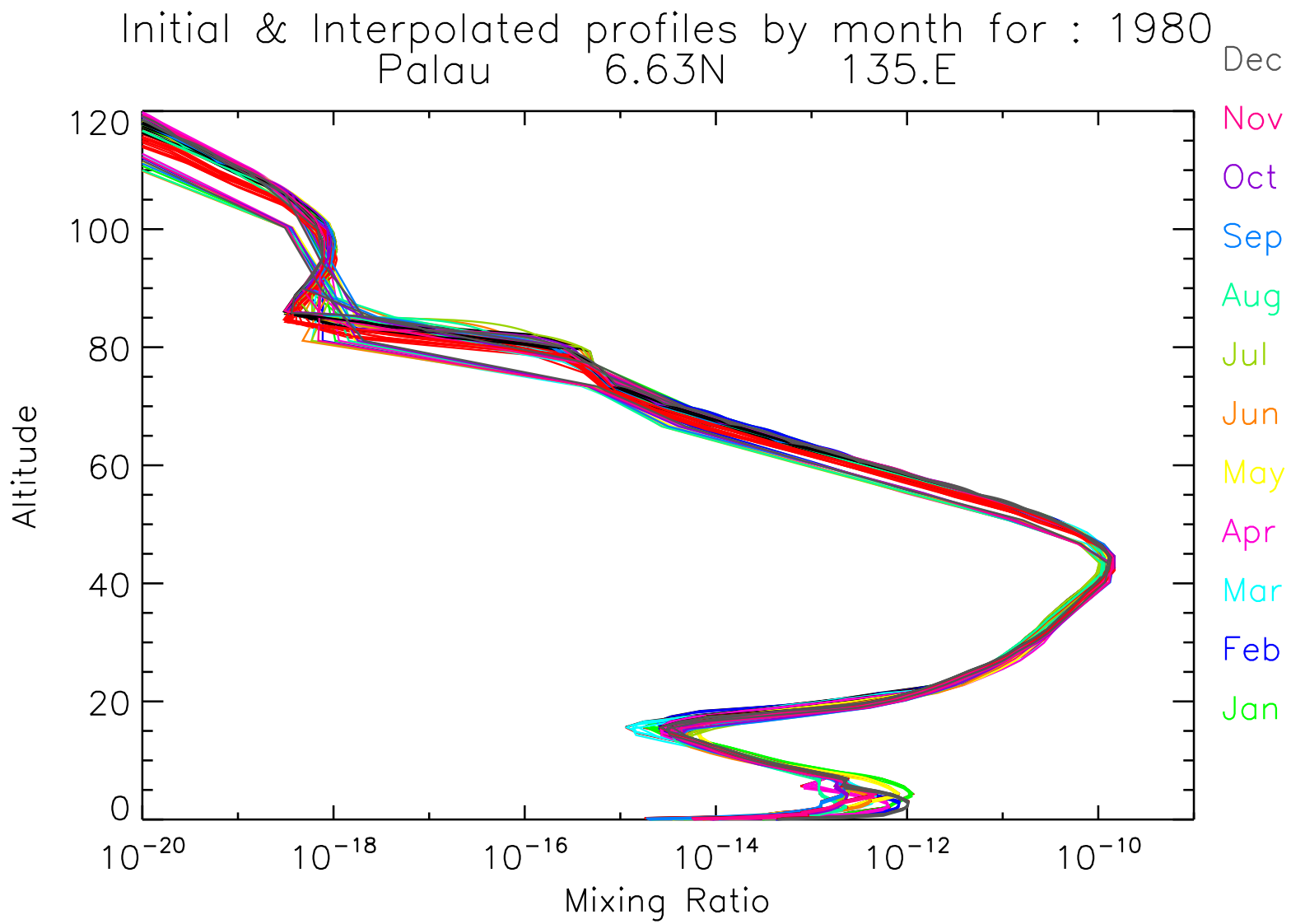
Initial & Interpolated profiles by month for : 1980
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
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Mixing Ratio
Dec
Nov
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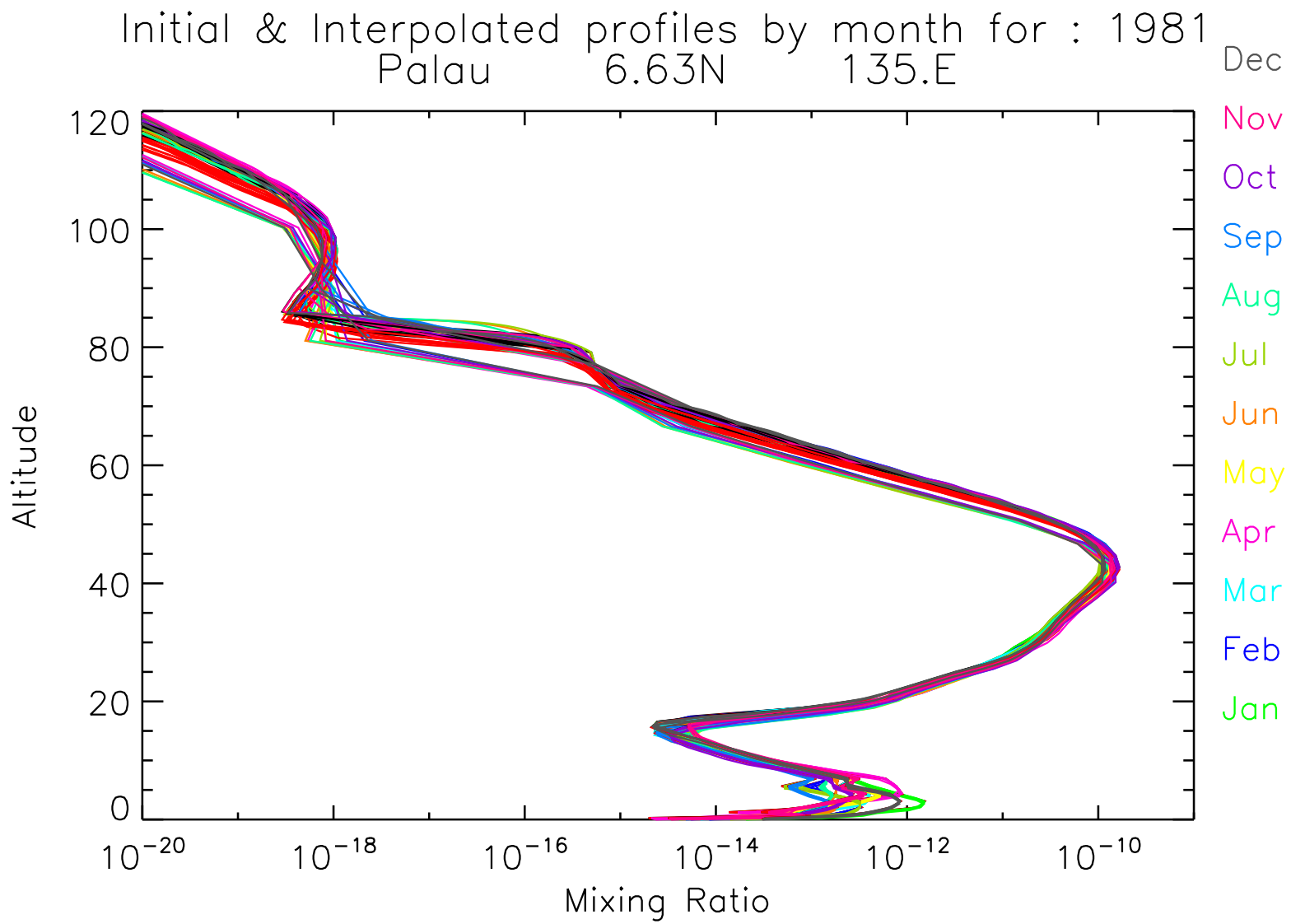
Initial & Interpolated profiles by month for : 1981
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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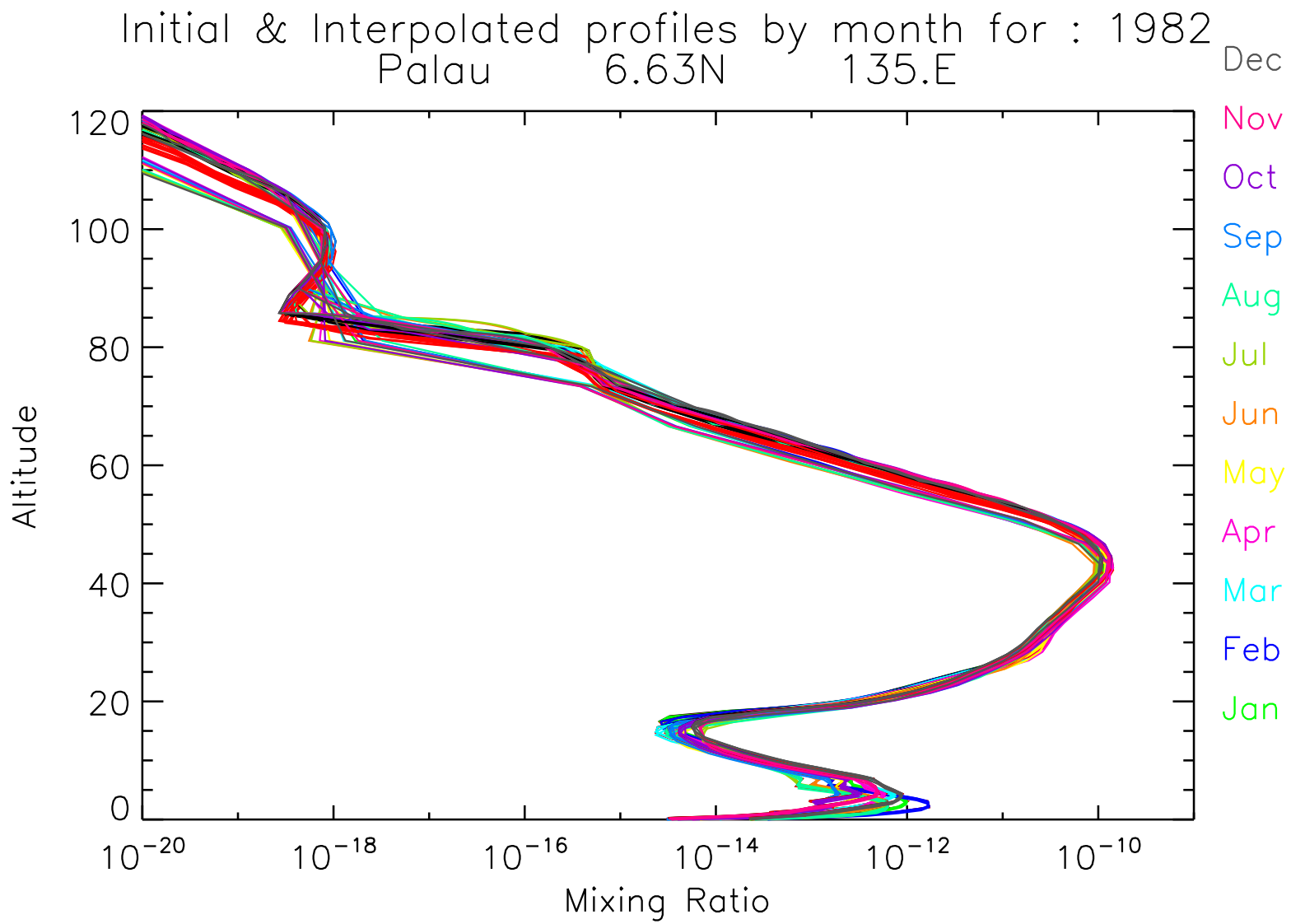
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
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May
Apr
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Feb
Jan
120
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Altitude
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10^{-18}
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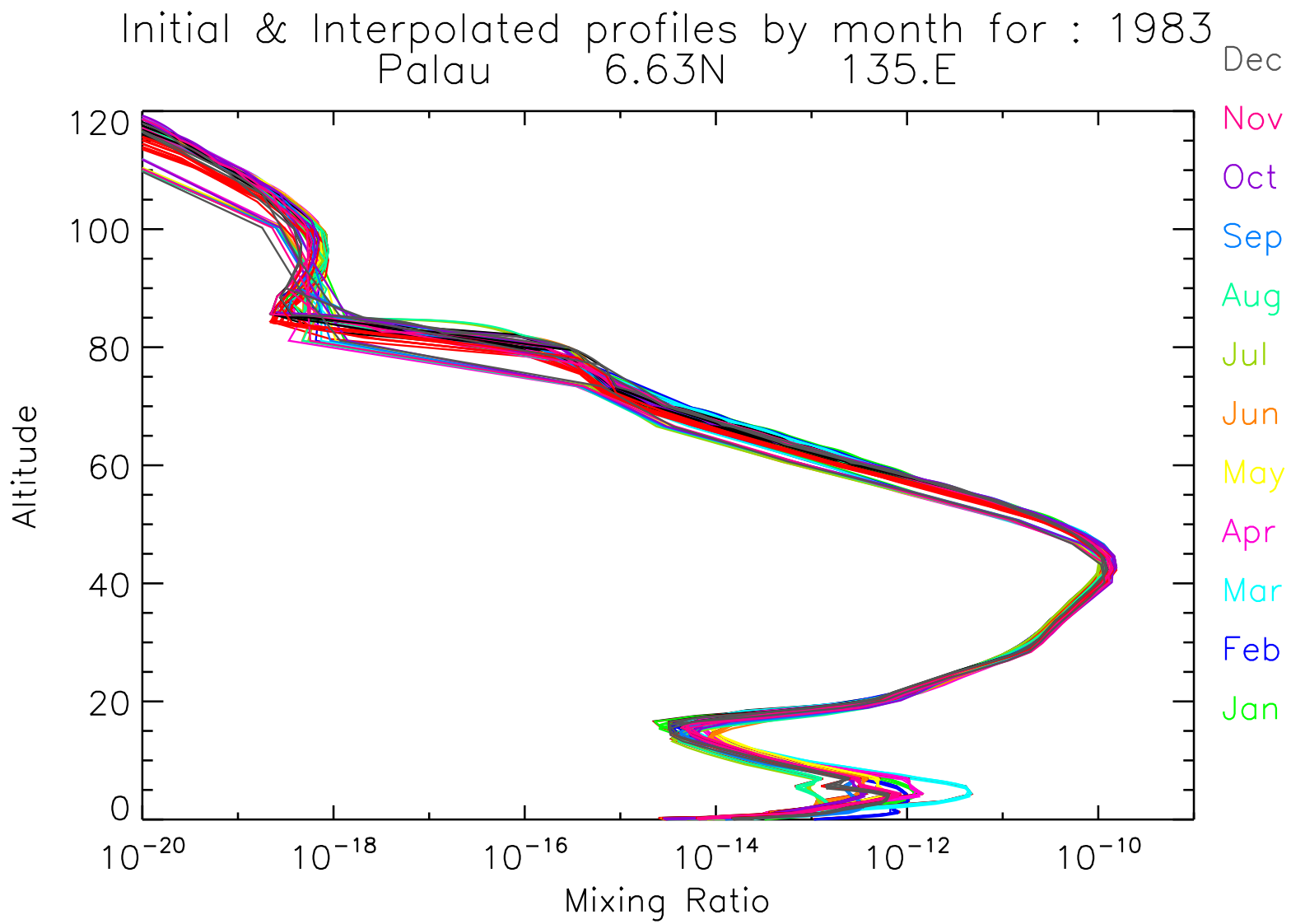
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Palau 6.63N 135.E
Dec
Nov
Oct
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May
Apr
Mar
Feb
Jan
120
100
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Altitude
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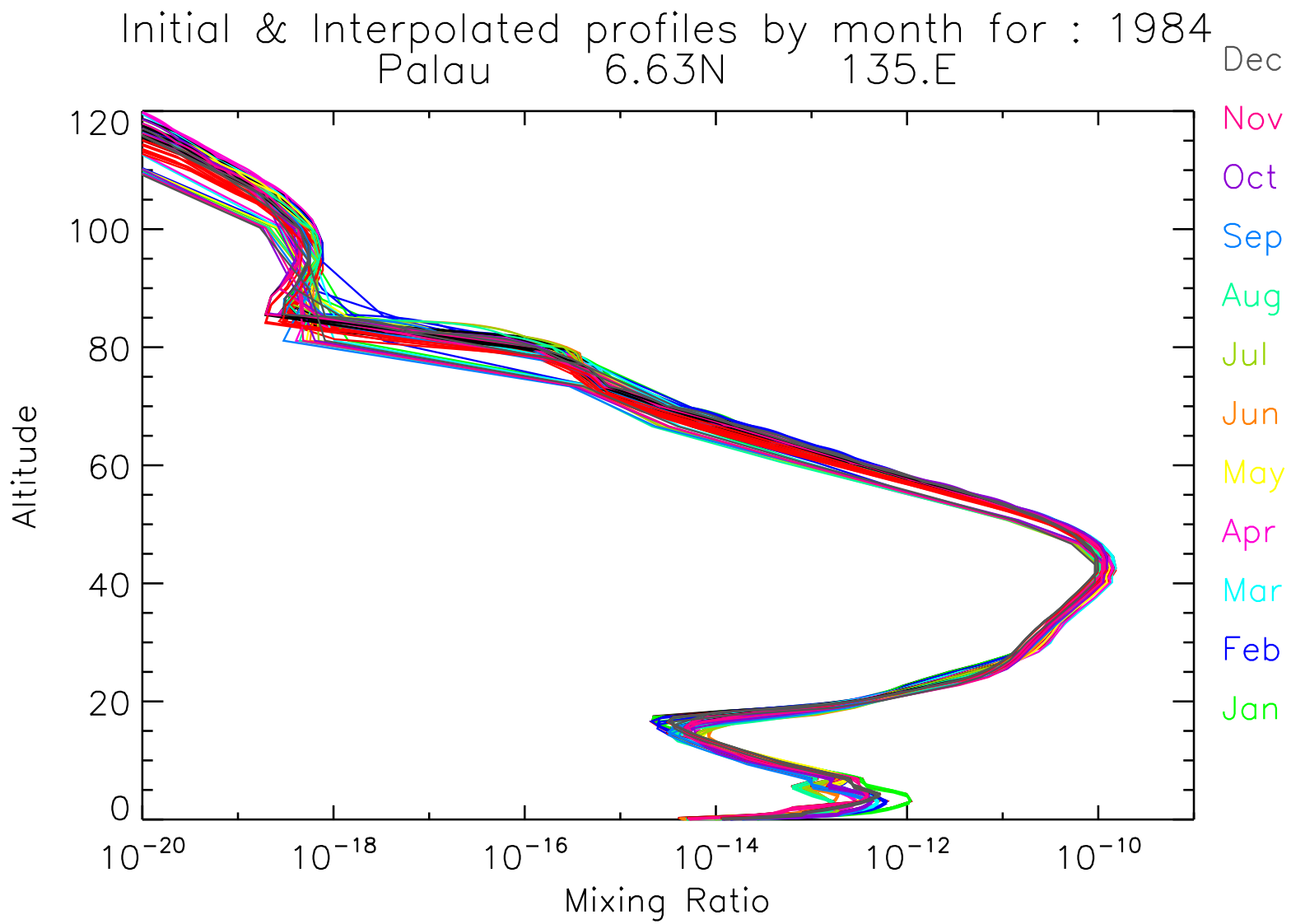
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
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20
0
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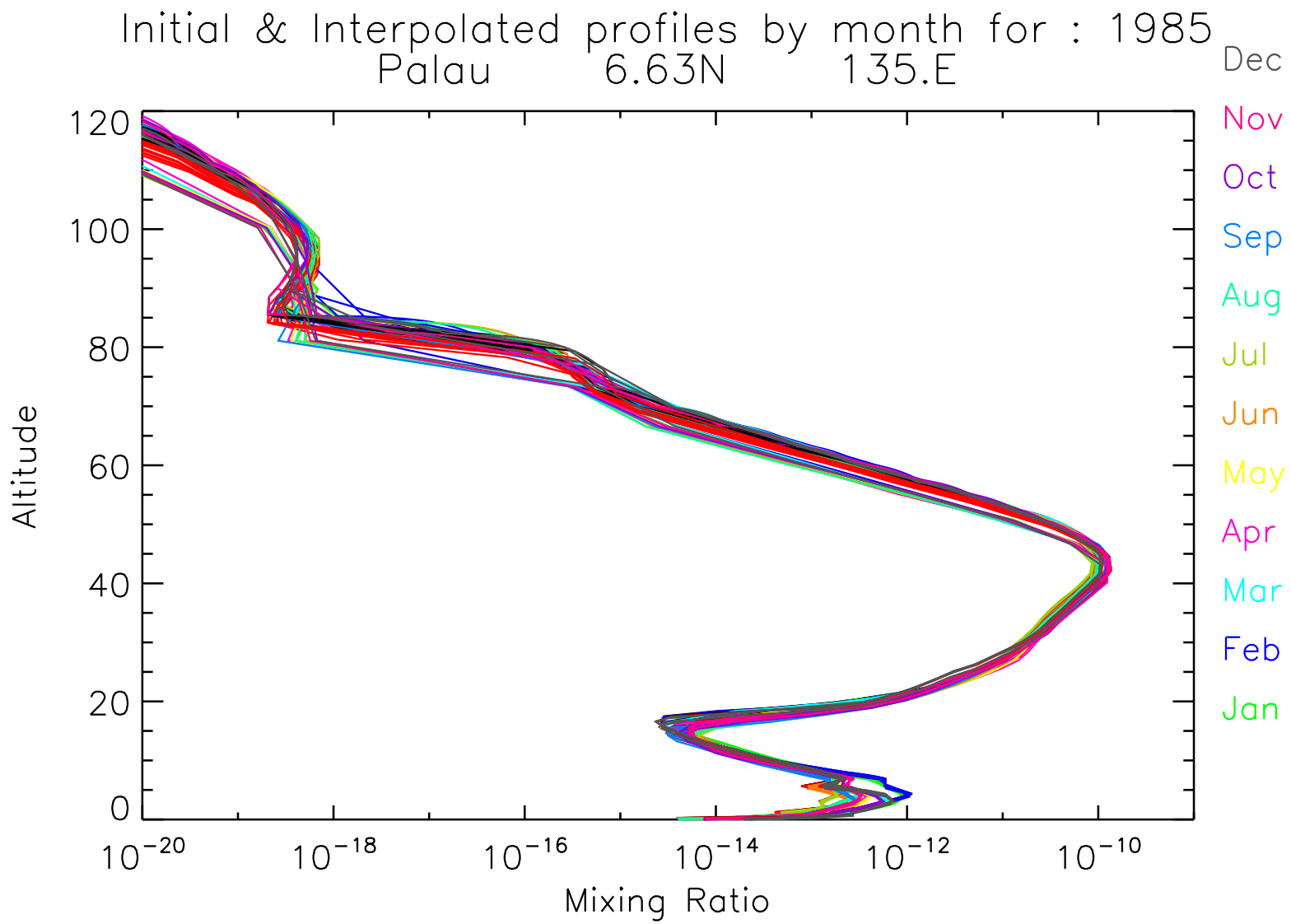
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Palau 6.63N 135.E
Dec
Nov
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May
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Feb
Jan
120
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0
Altitude
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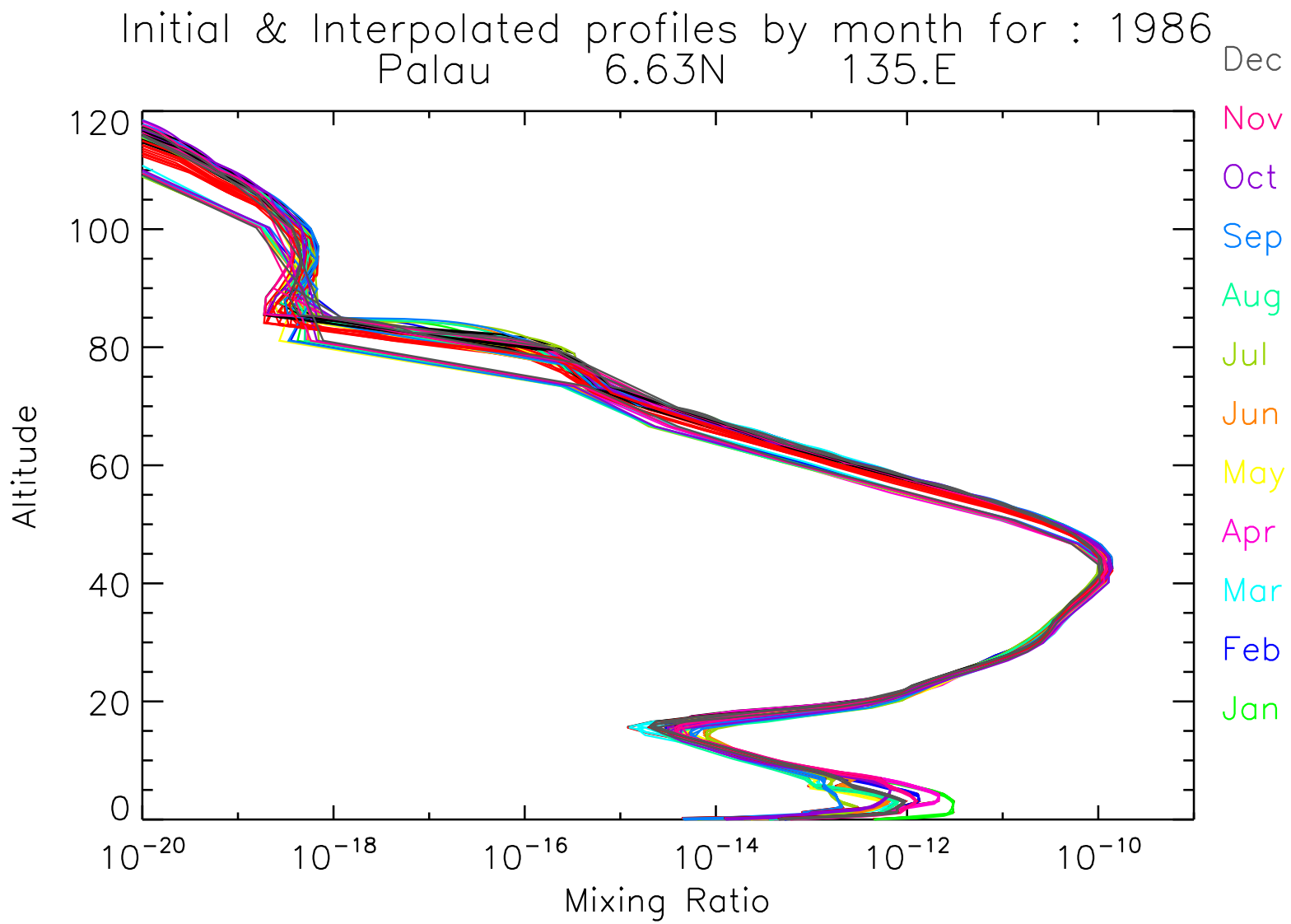
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Palau 6.63N 135.E
Dec
Nov
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Jan
120
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Altitude
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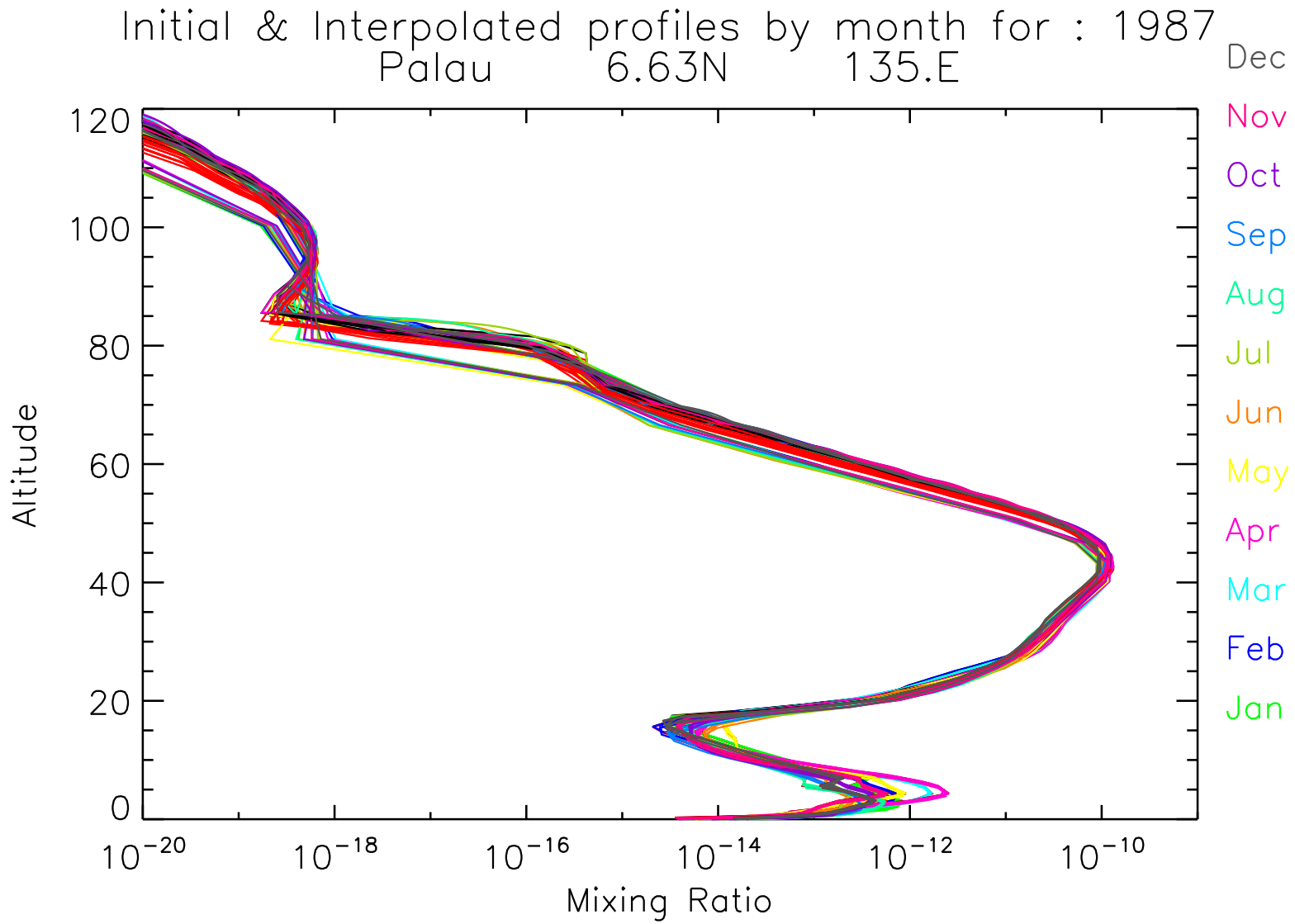
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Palau 6.63N 135.E
Altitude
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Mixing Ratio
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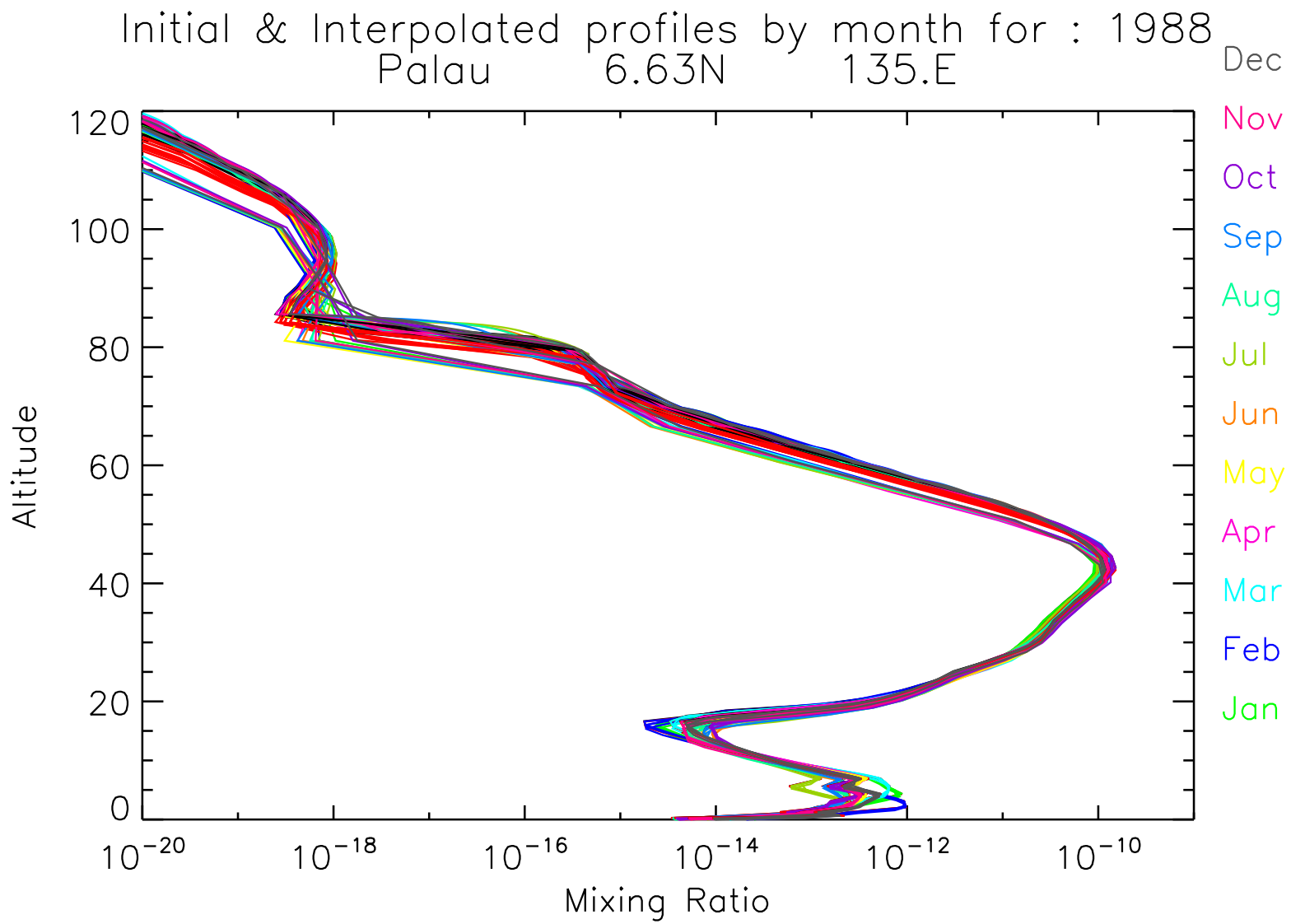
Initial & Interpolated profiles by month for : 1988
Palau 6.63N 135.E
Dec
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120
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Altitude
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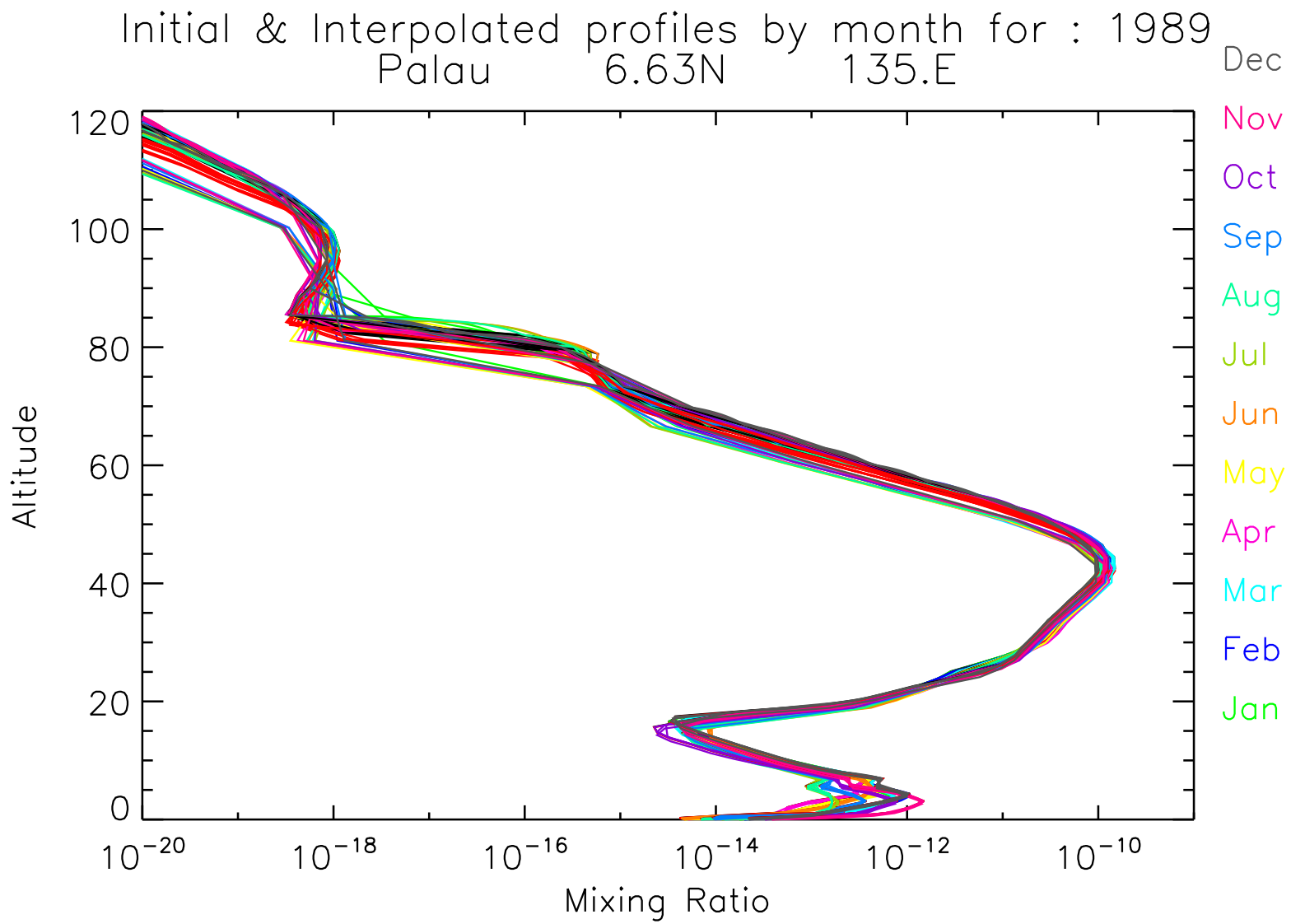
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Palau 6.63N 135.E
Dec
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Jan
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Altitude
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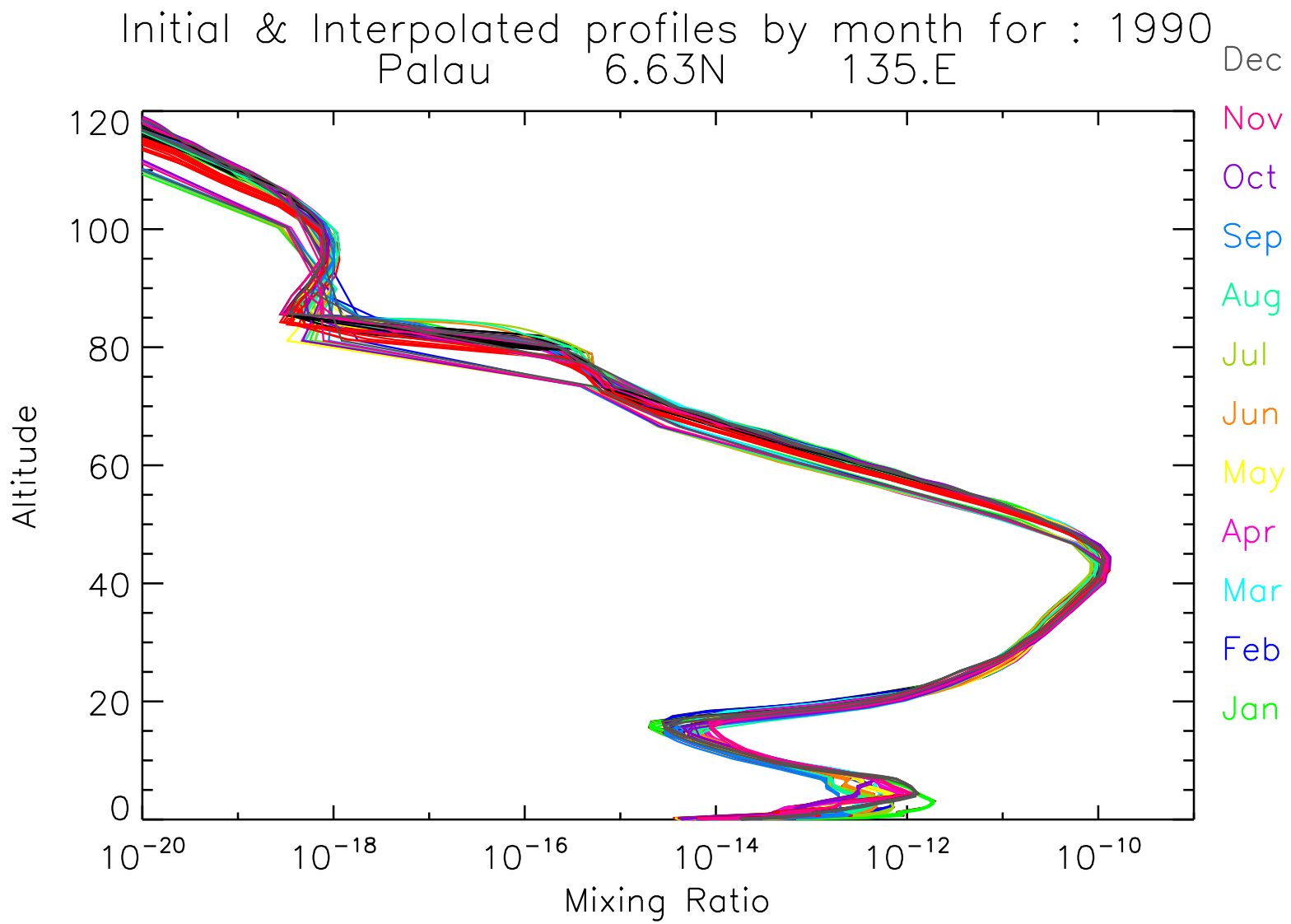
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Palau 6.63N 135.E
Altitude
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Mixing Ratio
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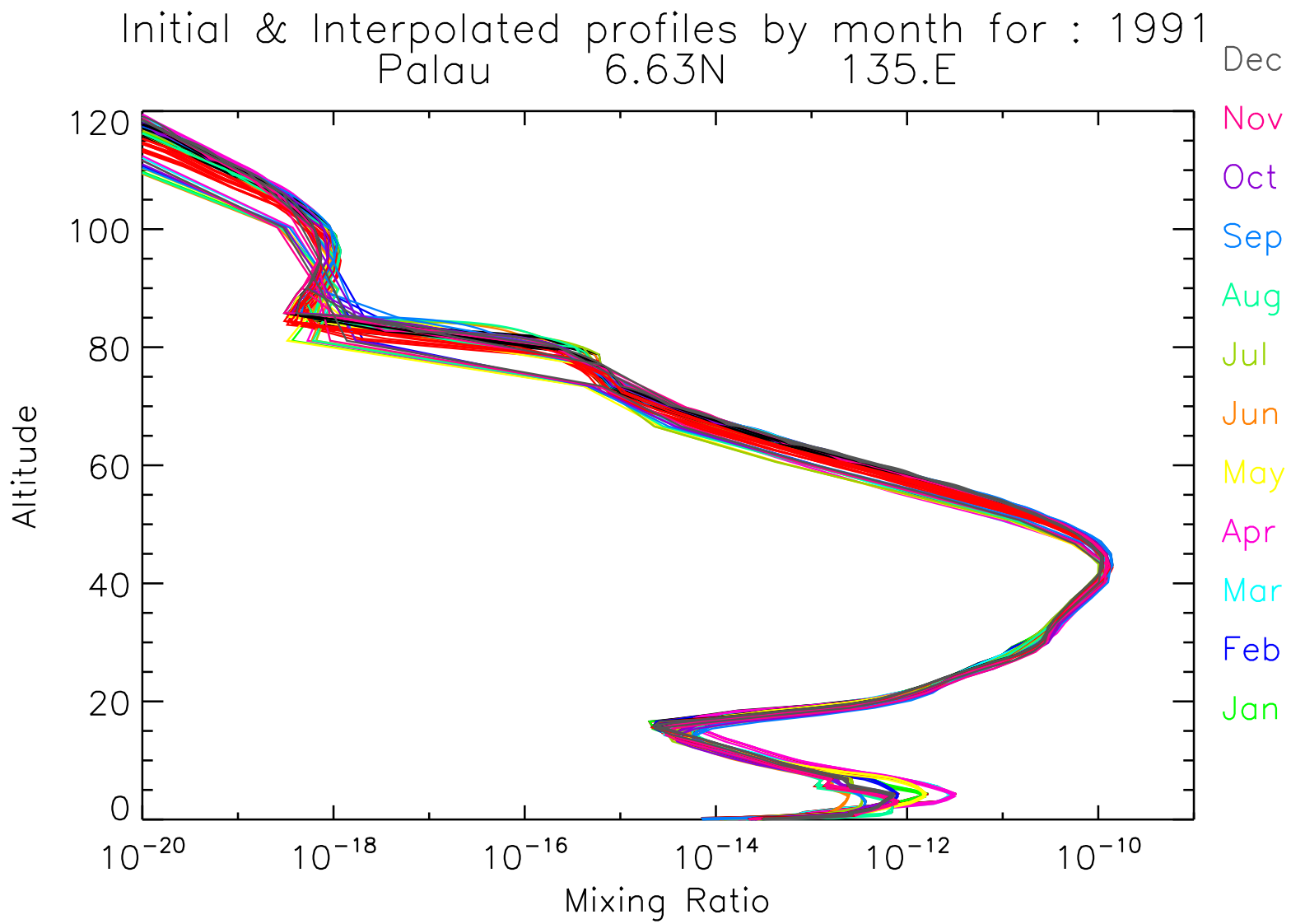
Initial & Interpolated profiles by month for : 1991
Palau 6.63N 135.E
Dec
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Apr
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Feb
Jan
Altitude
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10^{-20}
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10^{-16}
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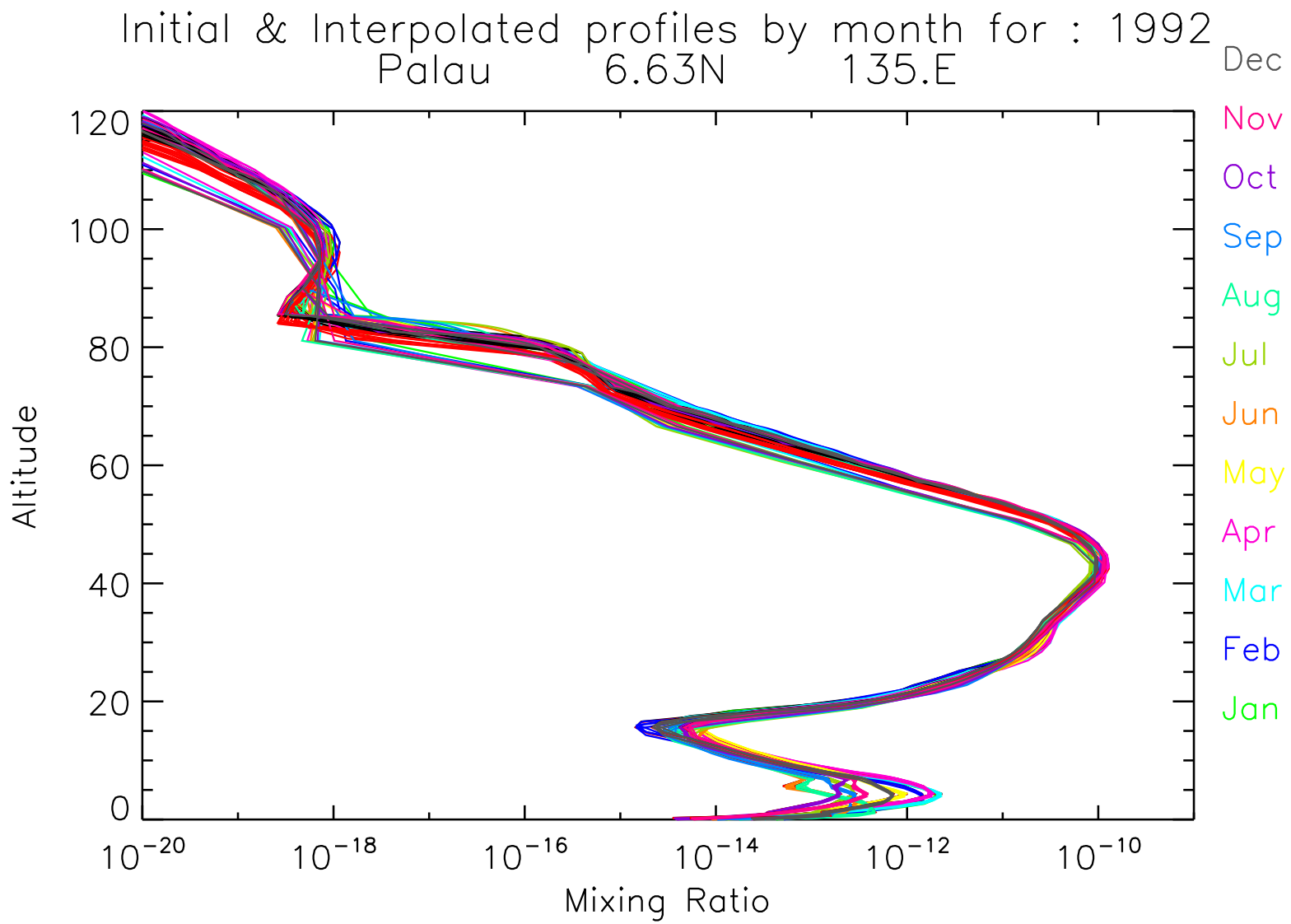
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Palau 6.63N 135.E
Altitude
120
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Mixing Ratio
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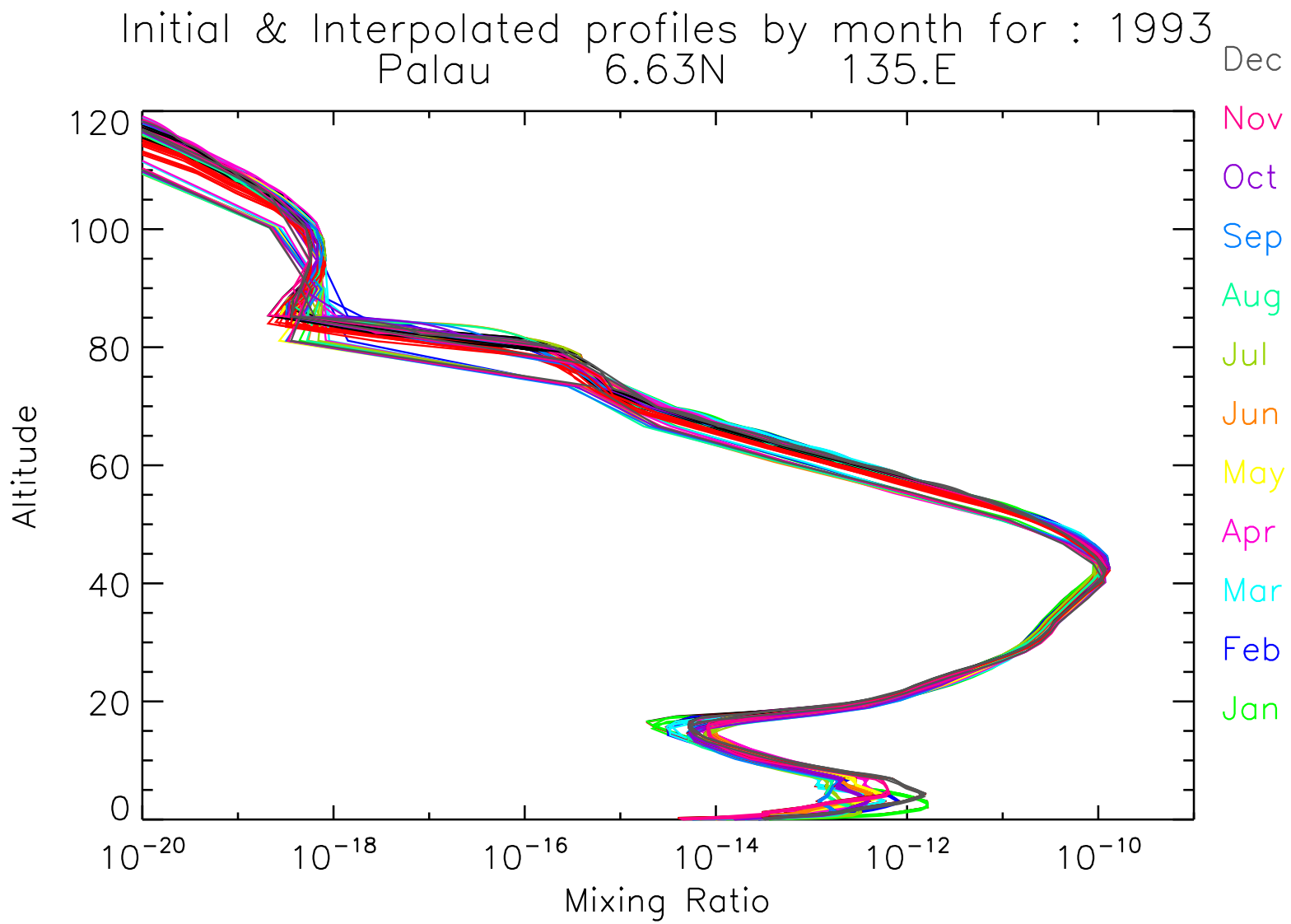
Initial & Interpolated profiles by month for : 1993
Palau 6.63N 135.E
Altitude
120
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10^{-20}
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Mixing Ratio
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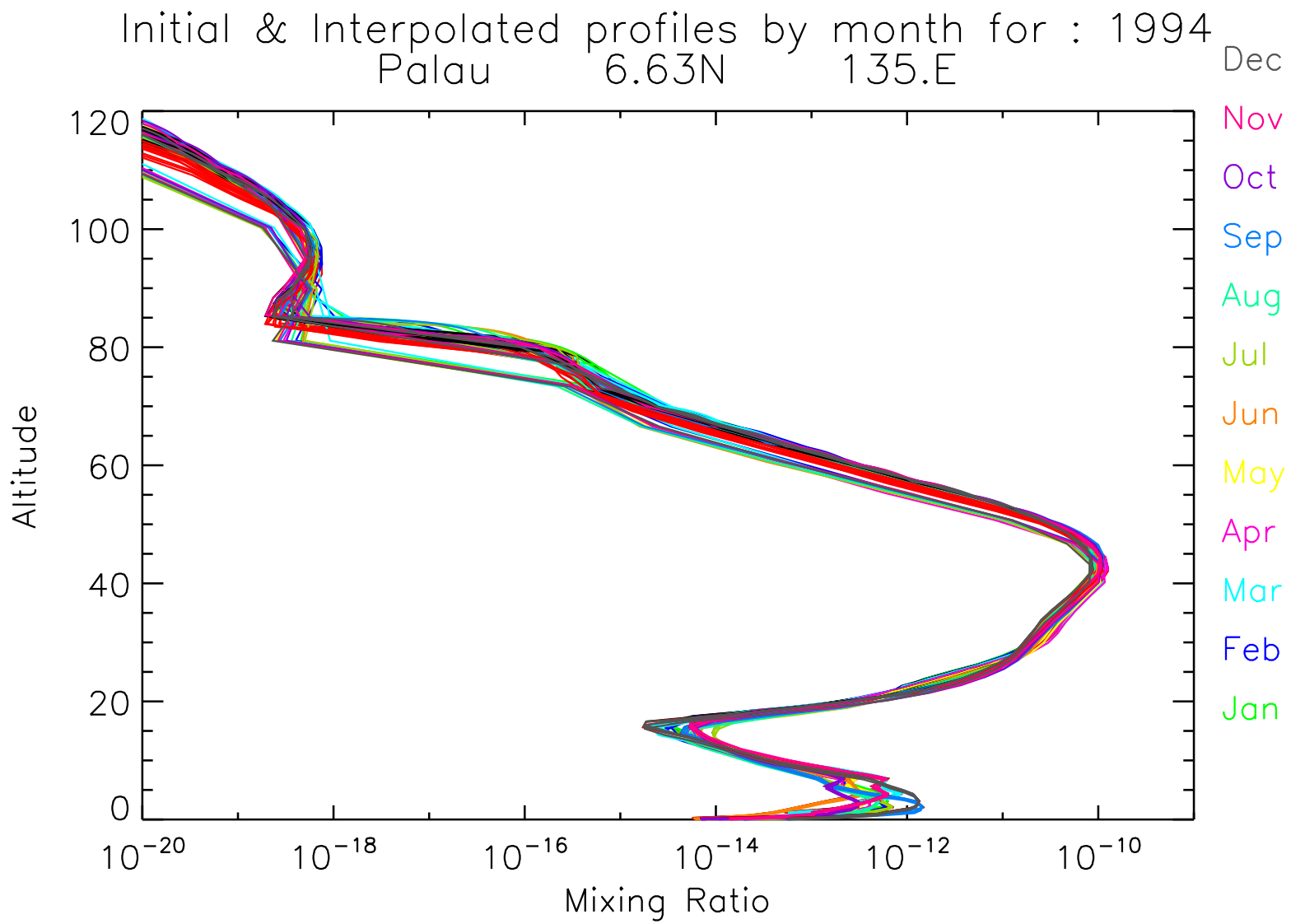
Initial & Interpolated profiles by month for : 1994
Palau 6.63N 135.E
Altitude
120
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10^{-20}
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10^{-10}
Mixing Ratio
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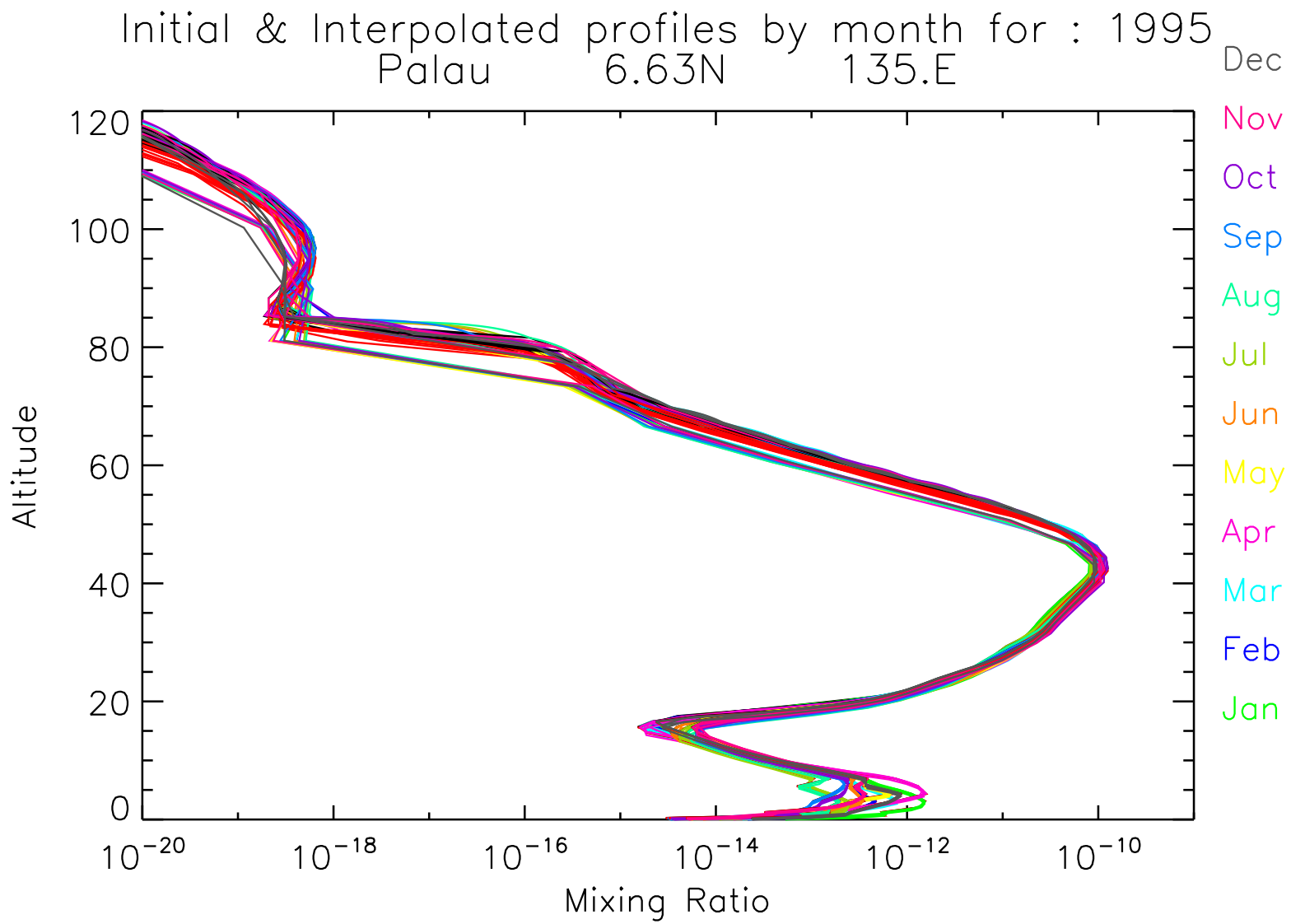
Initial & Interpolated profiles by month for : 1995
Palau 6.63N 135.E
Altitude
120
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10^{-20}
10^{-18}
10^{-16}
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10^{-10}
Mixing Ratio
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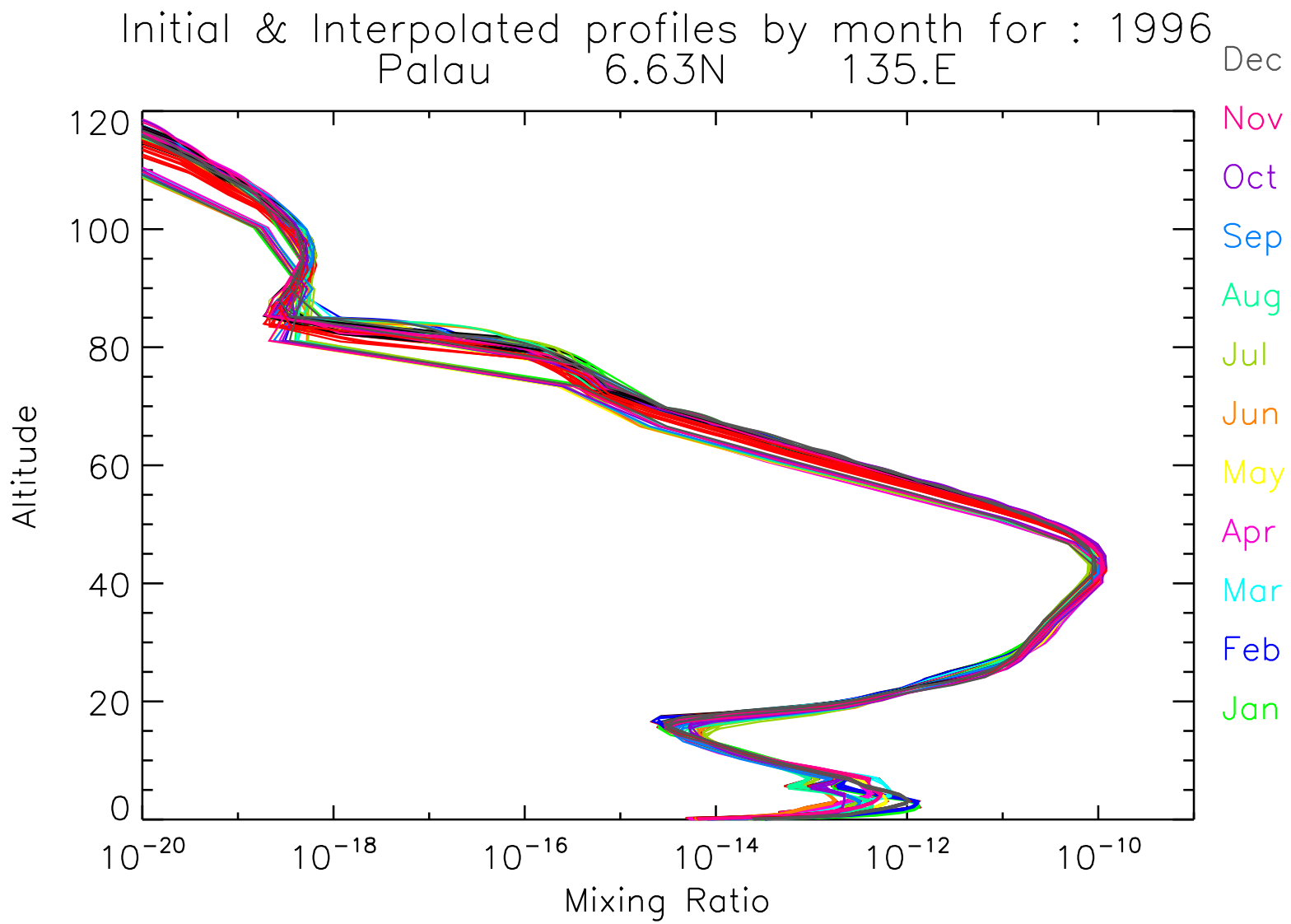
Initial & Interpolated profiles by month for : 1996
Palau 6.63N 135.E
Altitude
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100
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10^{-16}
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10^{-10}
Mixing Ratio
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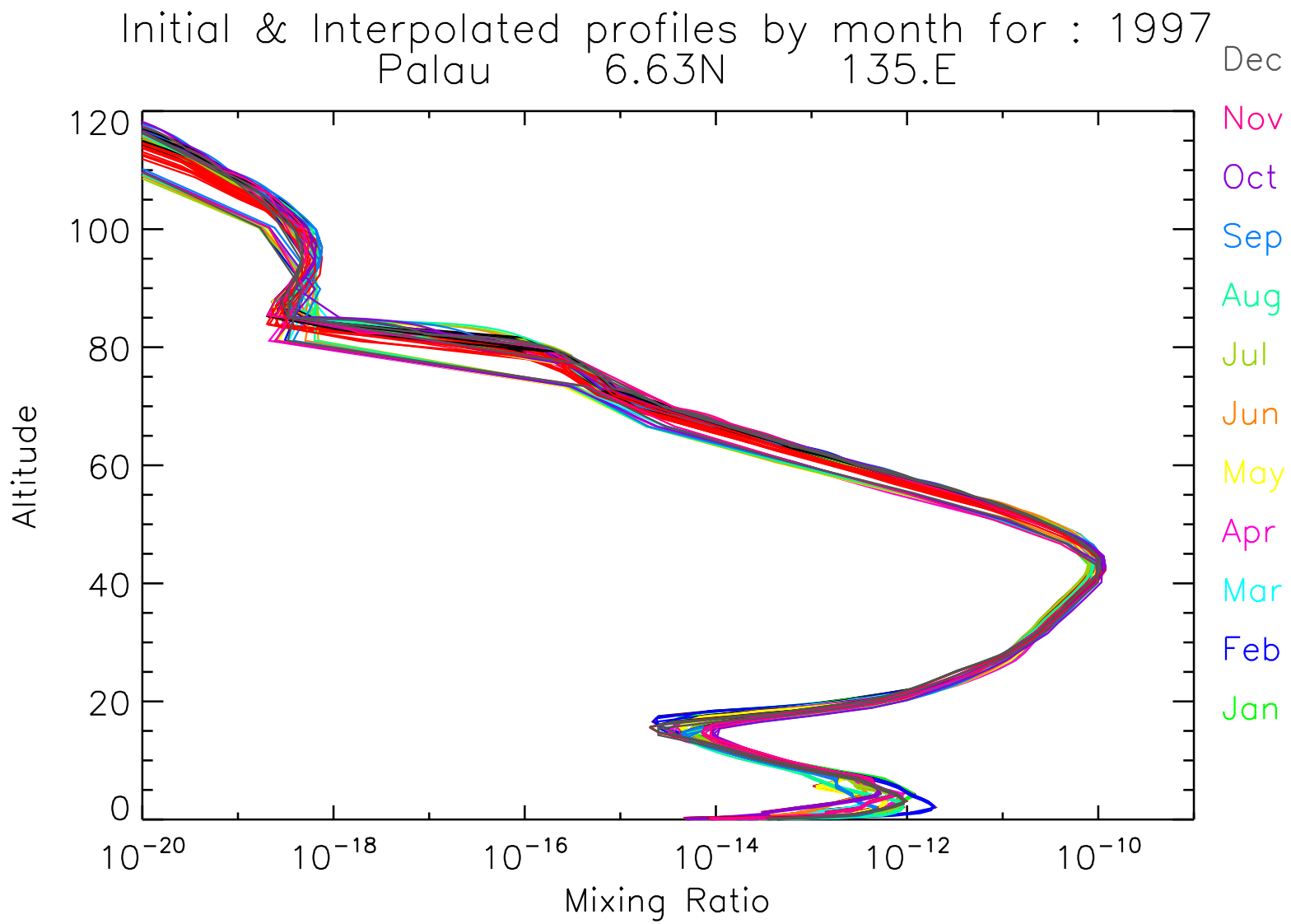
Initial & Interpolated profiles by month for : 1997
Palau 6.63N 135.E
Dec
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Jan
120
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Altitude
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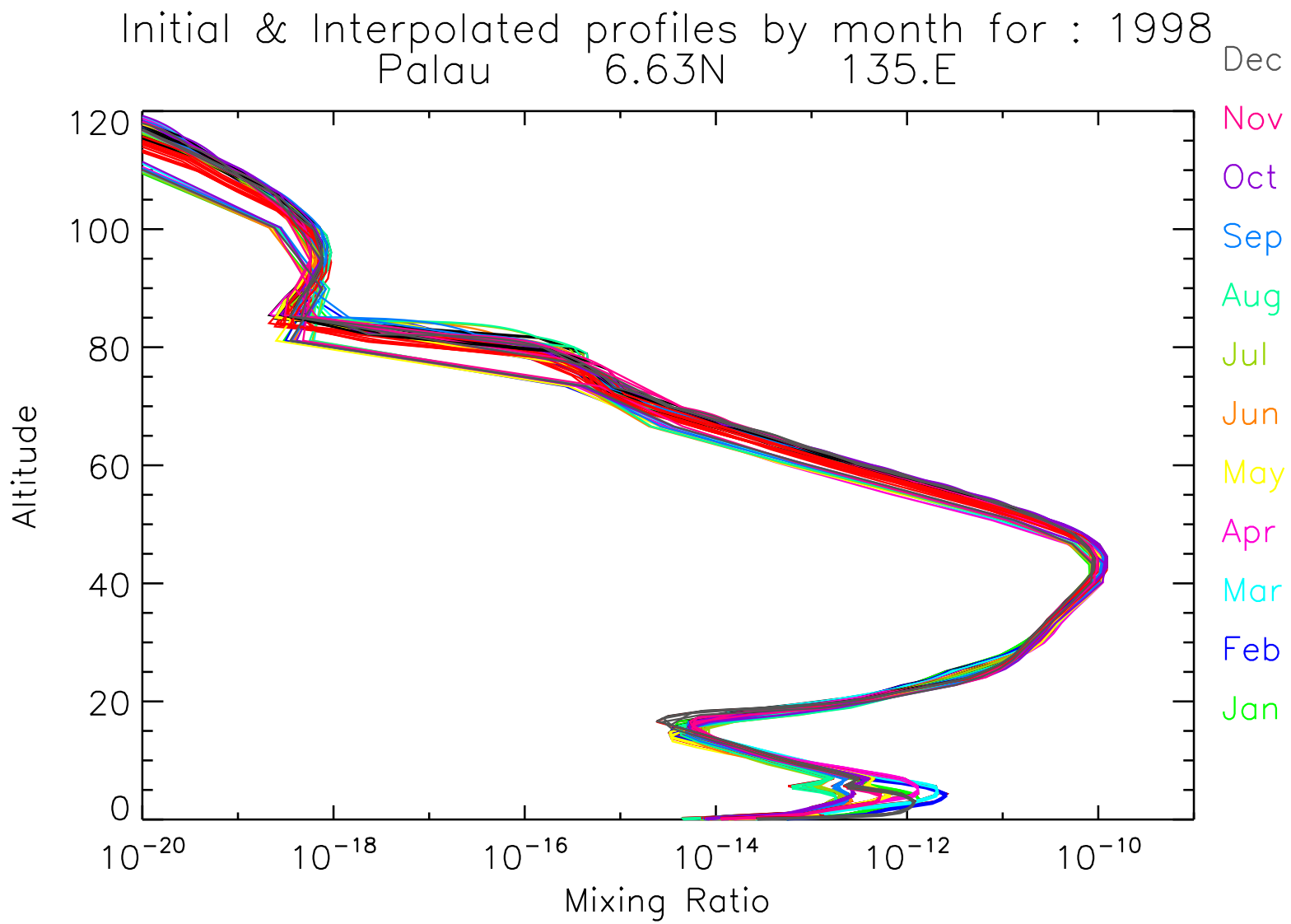
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Palau 6.63N 135.E
Altitude
120
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Mixing Ratio
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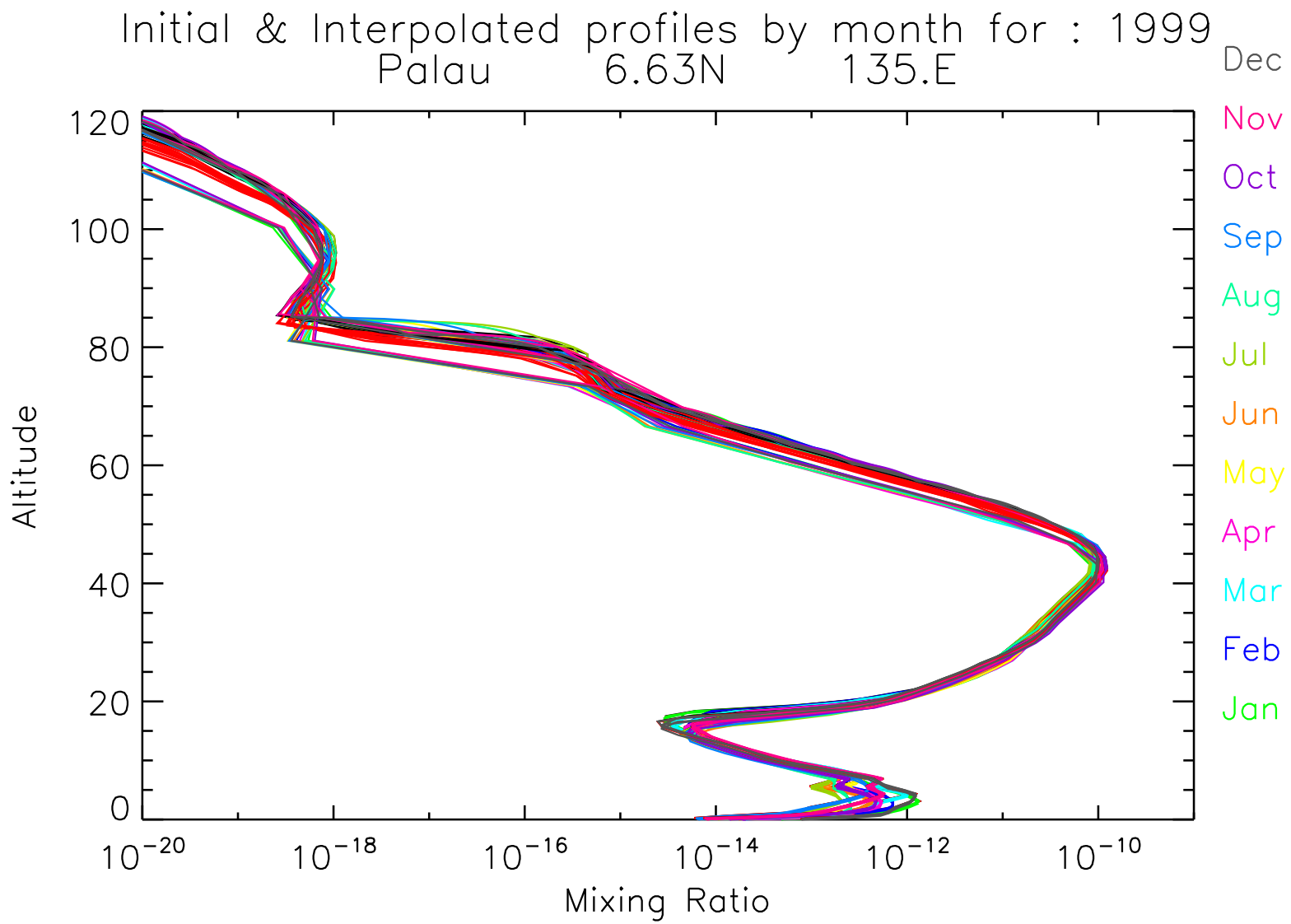
Initial & Interpolated profiles by month for : 1999
Palau 6.63N 135.E
Altitude
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Mixing Ratio
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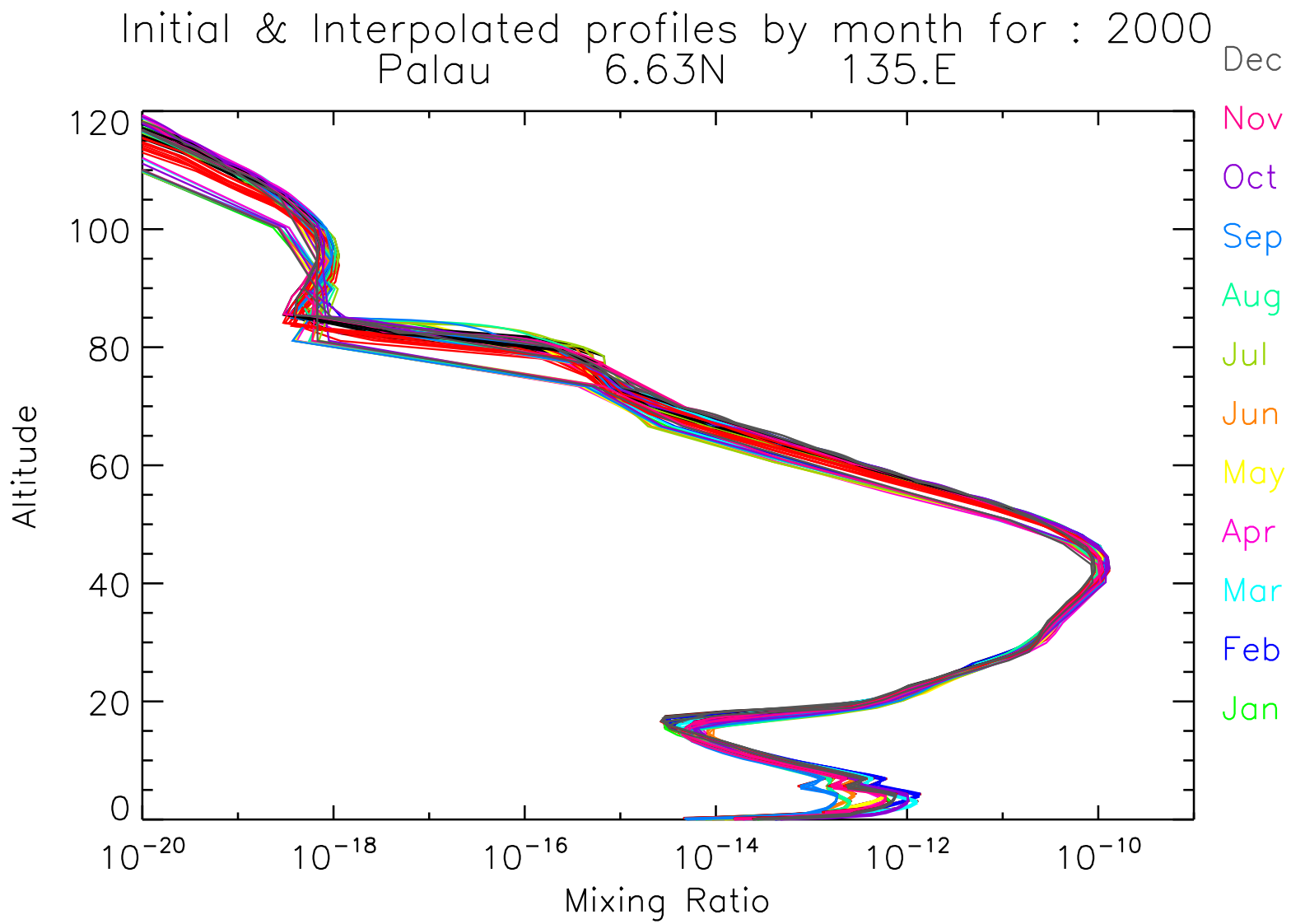
Initial & Interpolated profiles by month for : 2000
Palau 6.63N 135.E
Altitude
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100
80
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10^{-20}
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10^{-16}
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10^{-10}
Mixing Ratio
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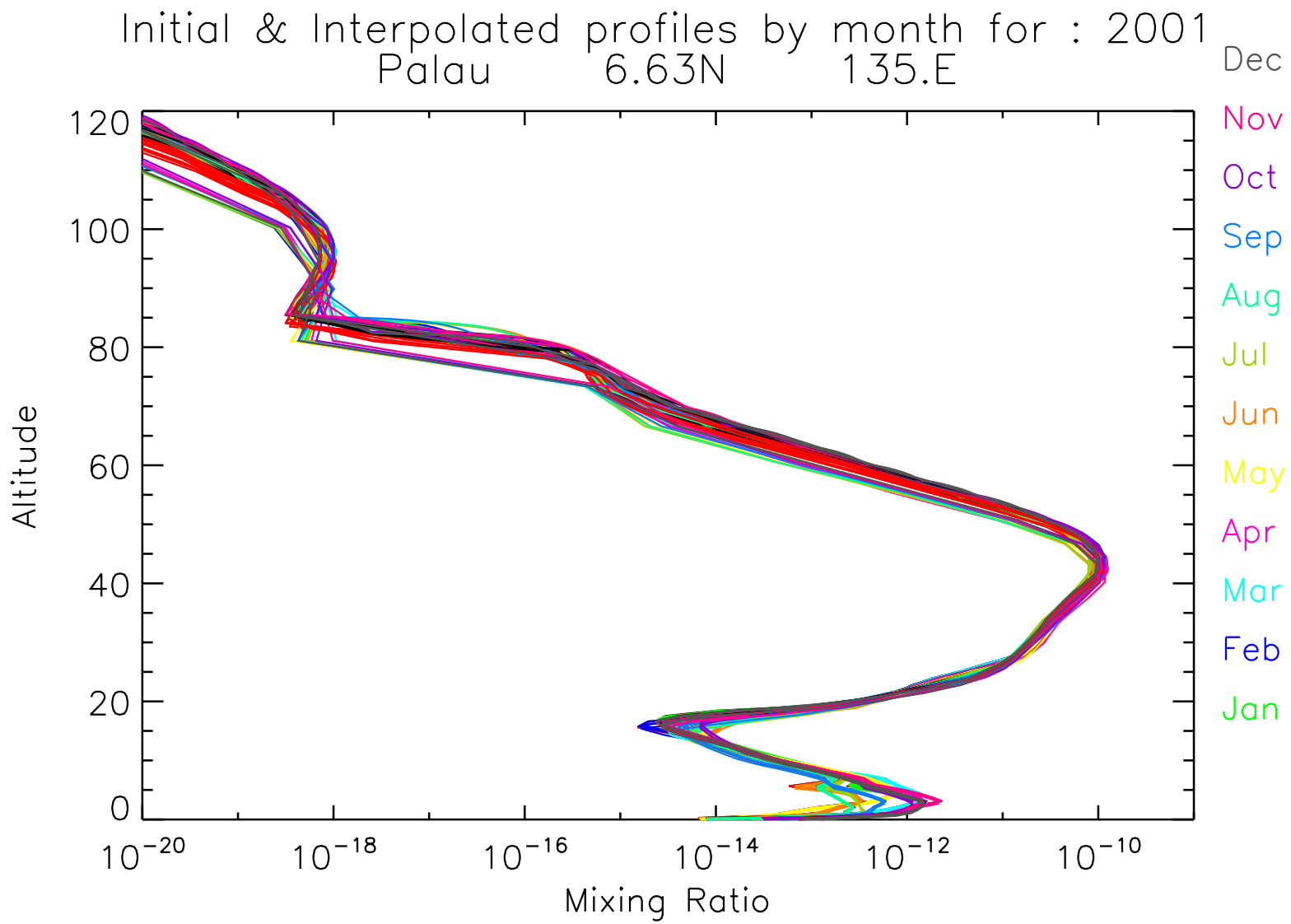
Jan


Initial & Interpolated profiles by month for : 2001
Palau 6.63N 135.E
Altitude
120
100
80
60
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10^{-18}
10^{-16}
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Mixing Ratio
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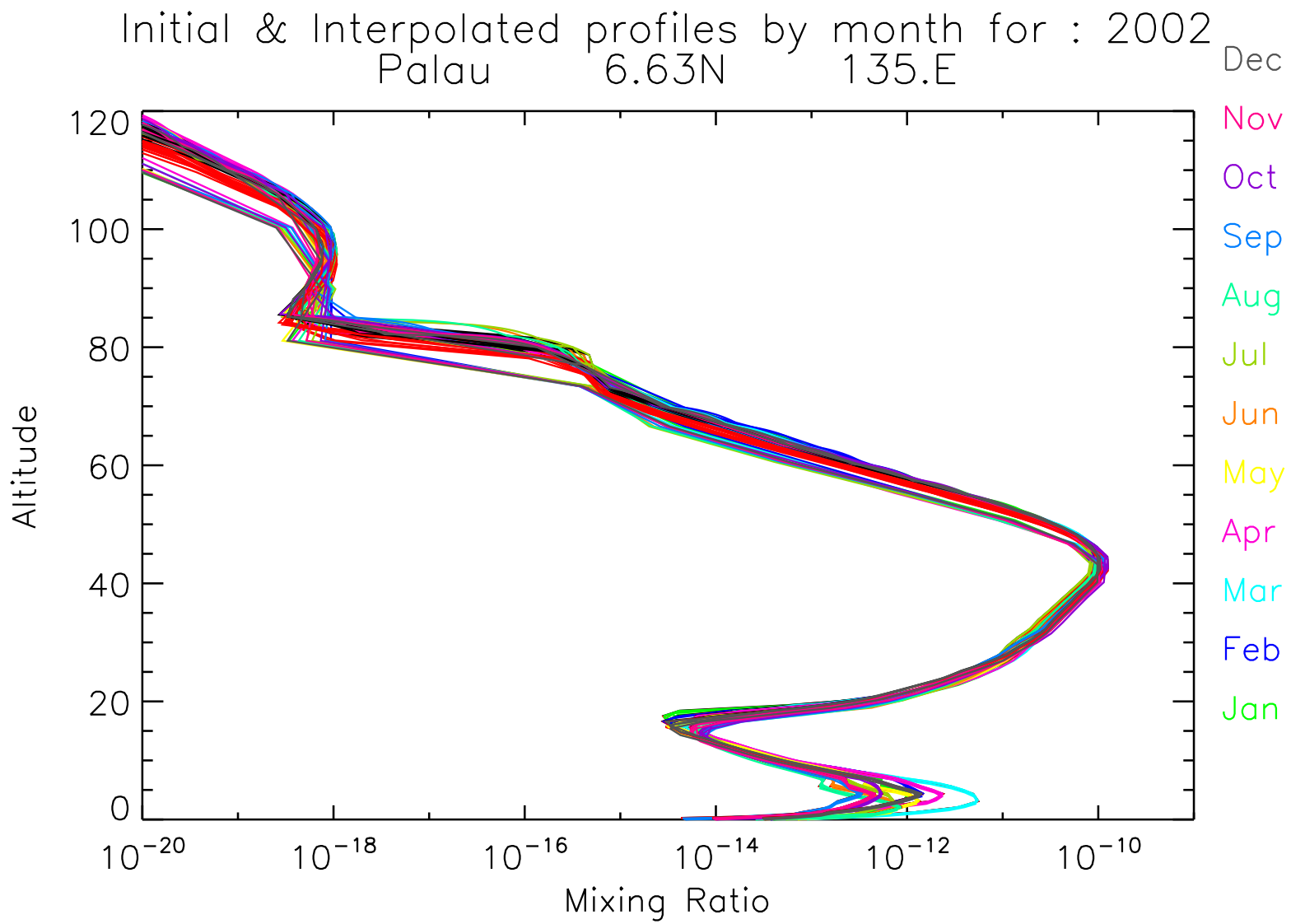
Initial & Interpolated profiles by month for : 2002
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
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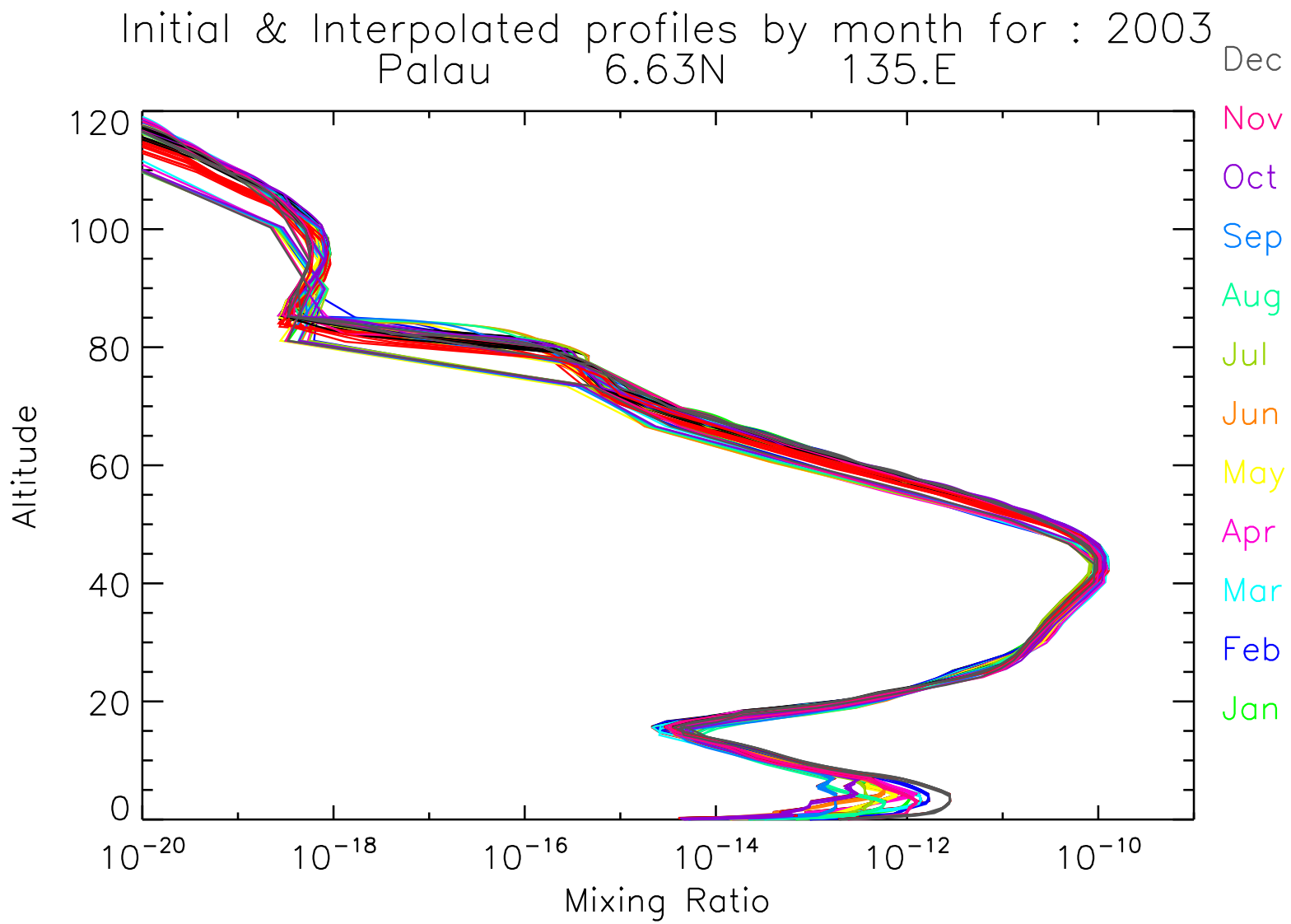
20
0
Altitude
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
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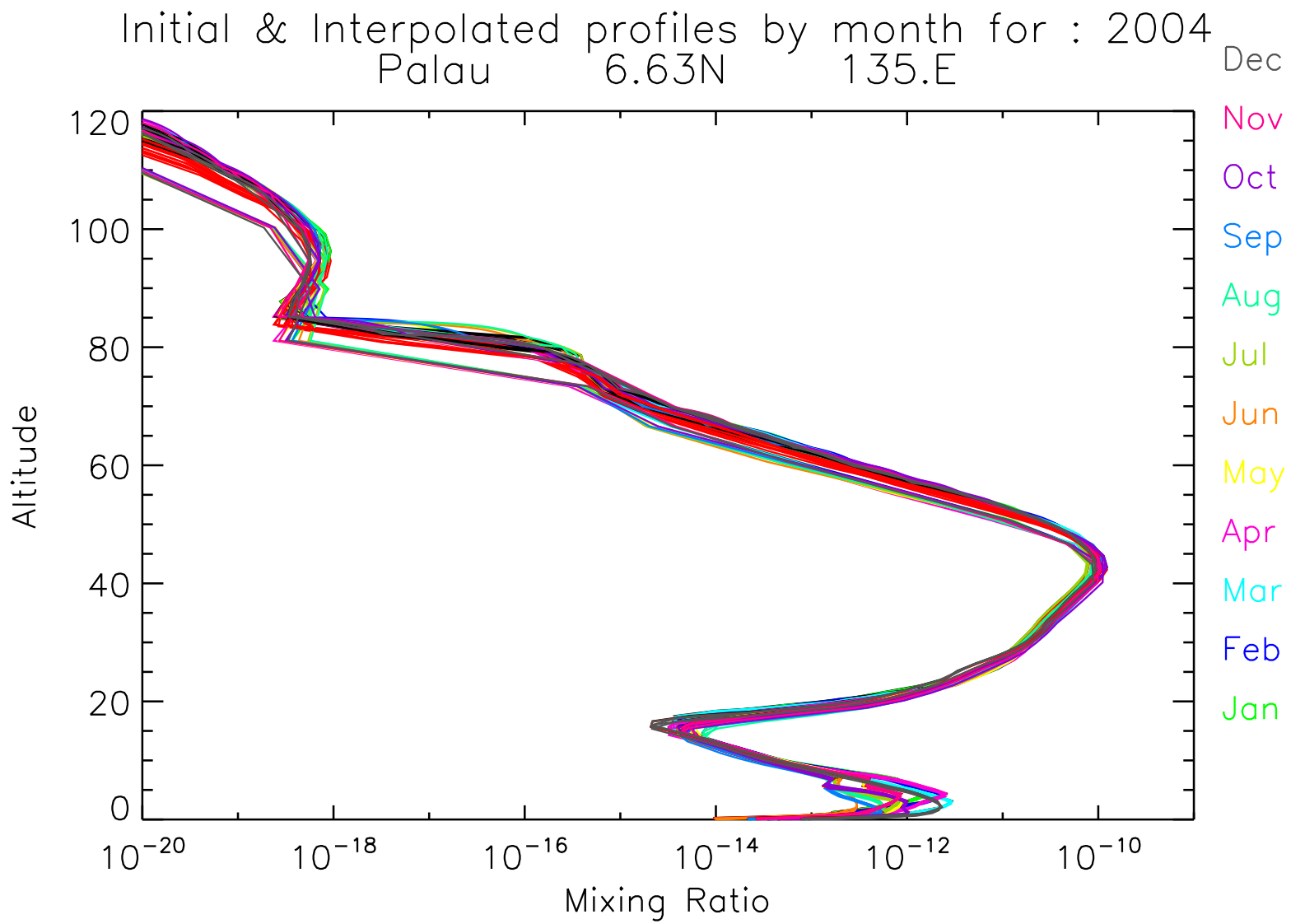
0
Altitude
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
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10^{-10}
Mixing Ratio
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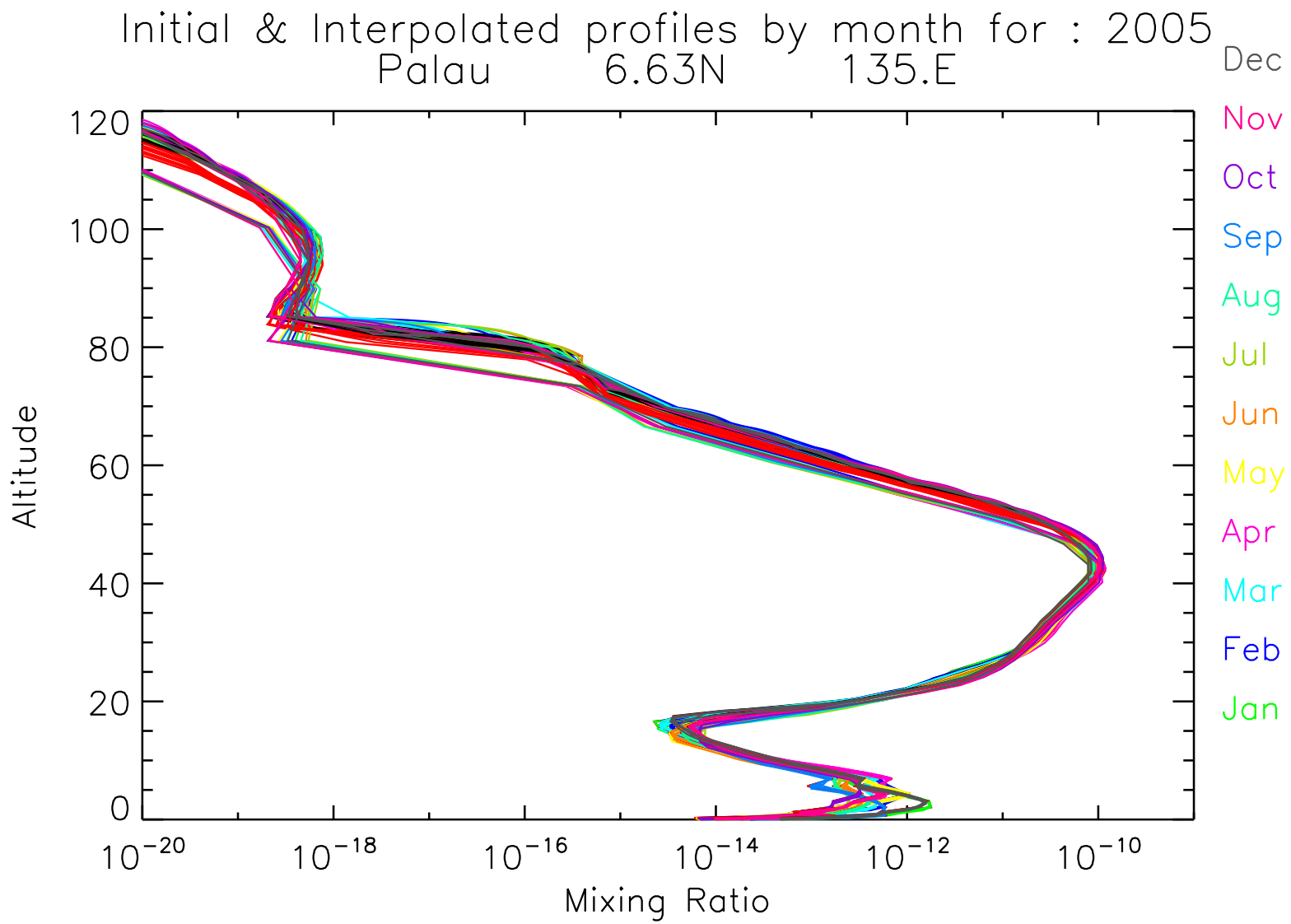
Initial & Interpolated profiles by month for : 2005
Palau 6.63N 135.E
Dec
Nov
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Apr
Mar
Feb
Jan
120
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Altitude
10^{-20}
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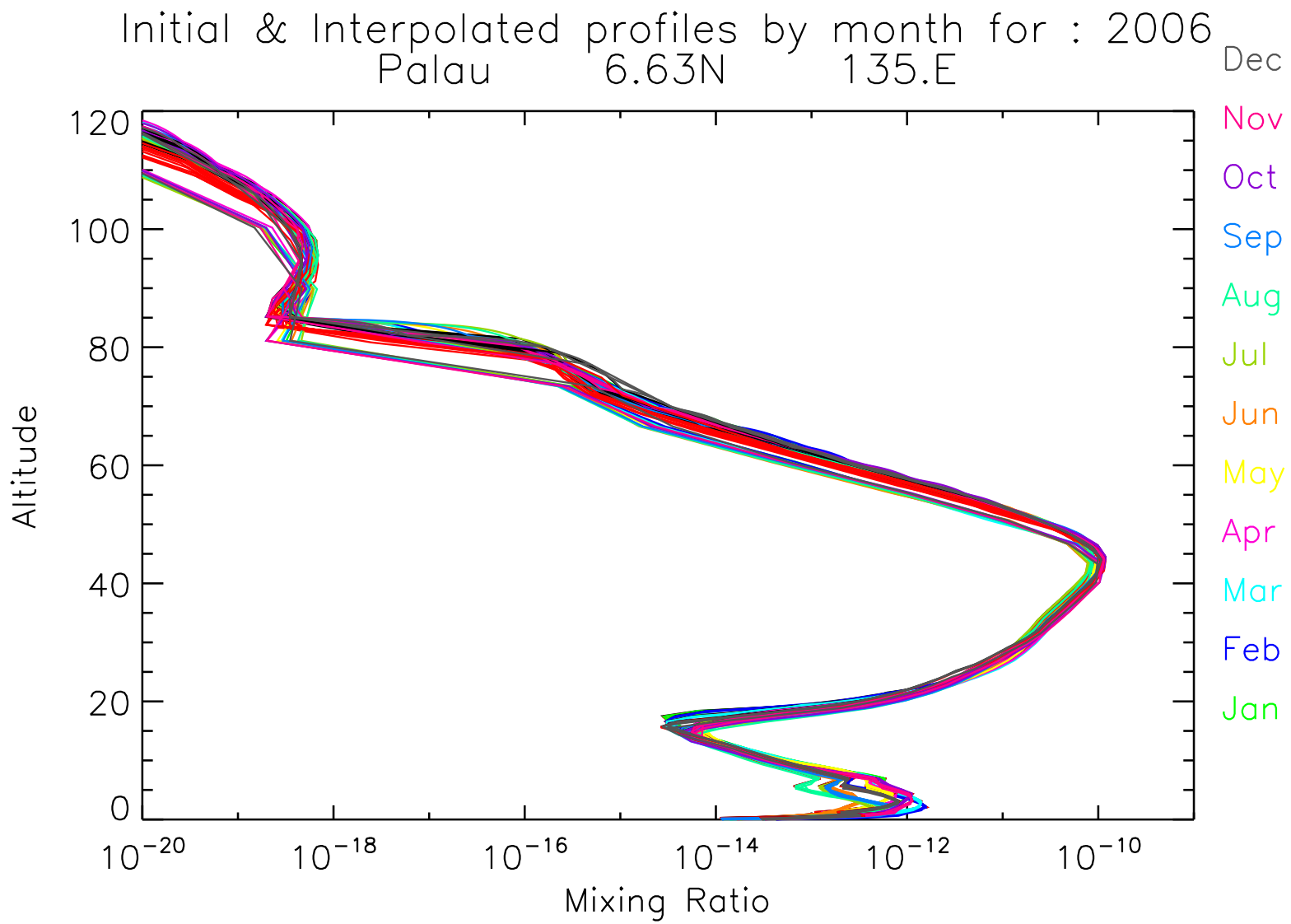
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Palau 6.63N 135.E
Altitude
120
100
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10^{-20}
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Mixing Ratio
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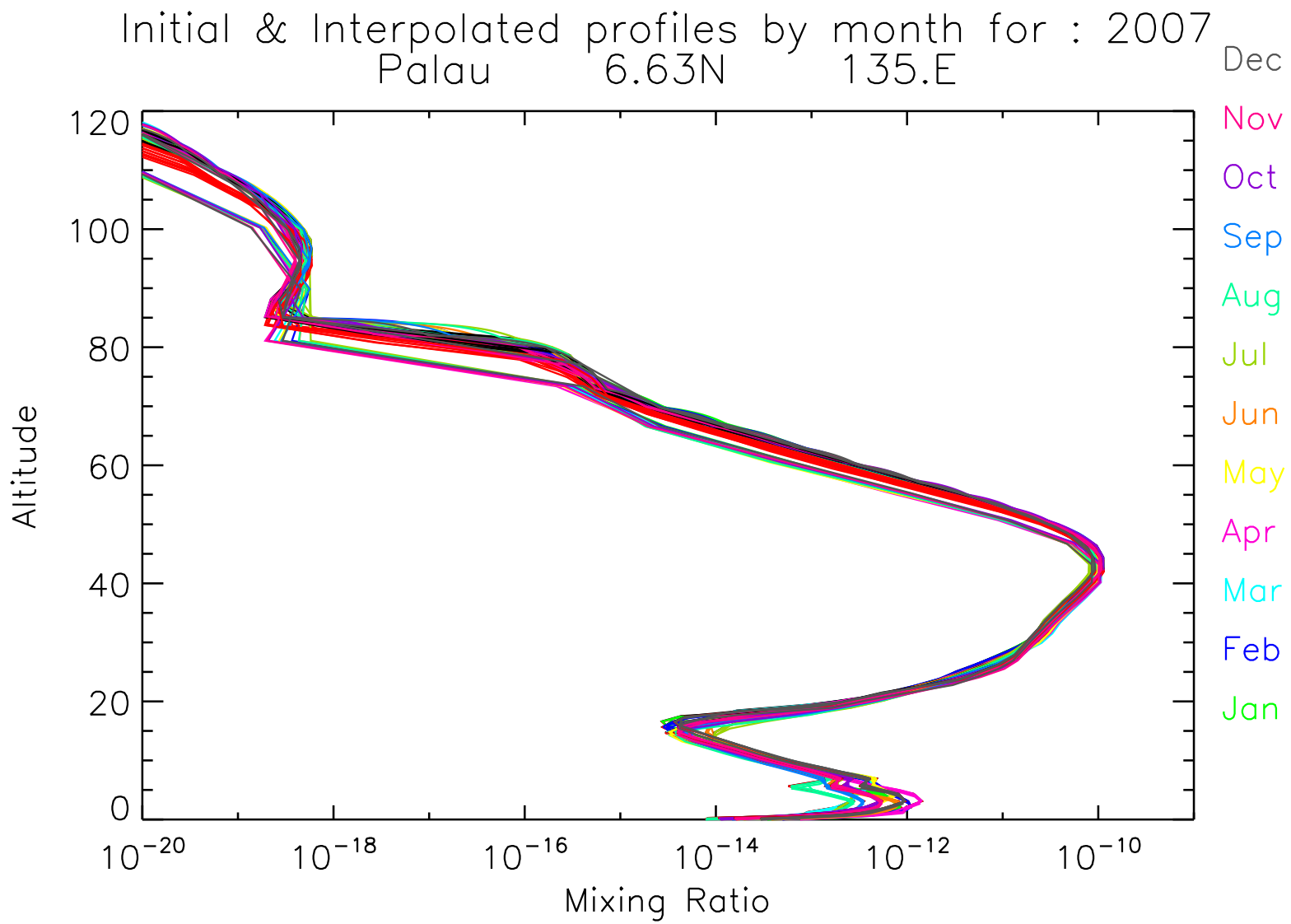
Initial & Interpolated profiles by month for : 2007
Palau 6.63N 135.E
Altitude
120
100
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60
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20
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10^{-20}
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10^{-16}
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10^{-10}
Mixing Ratio
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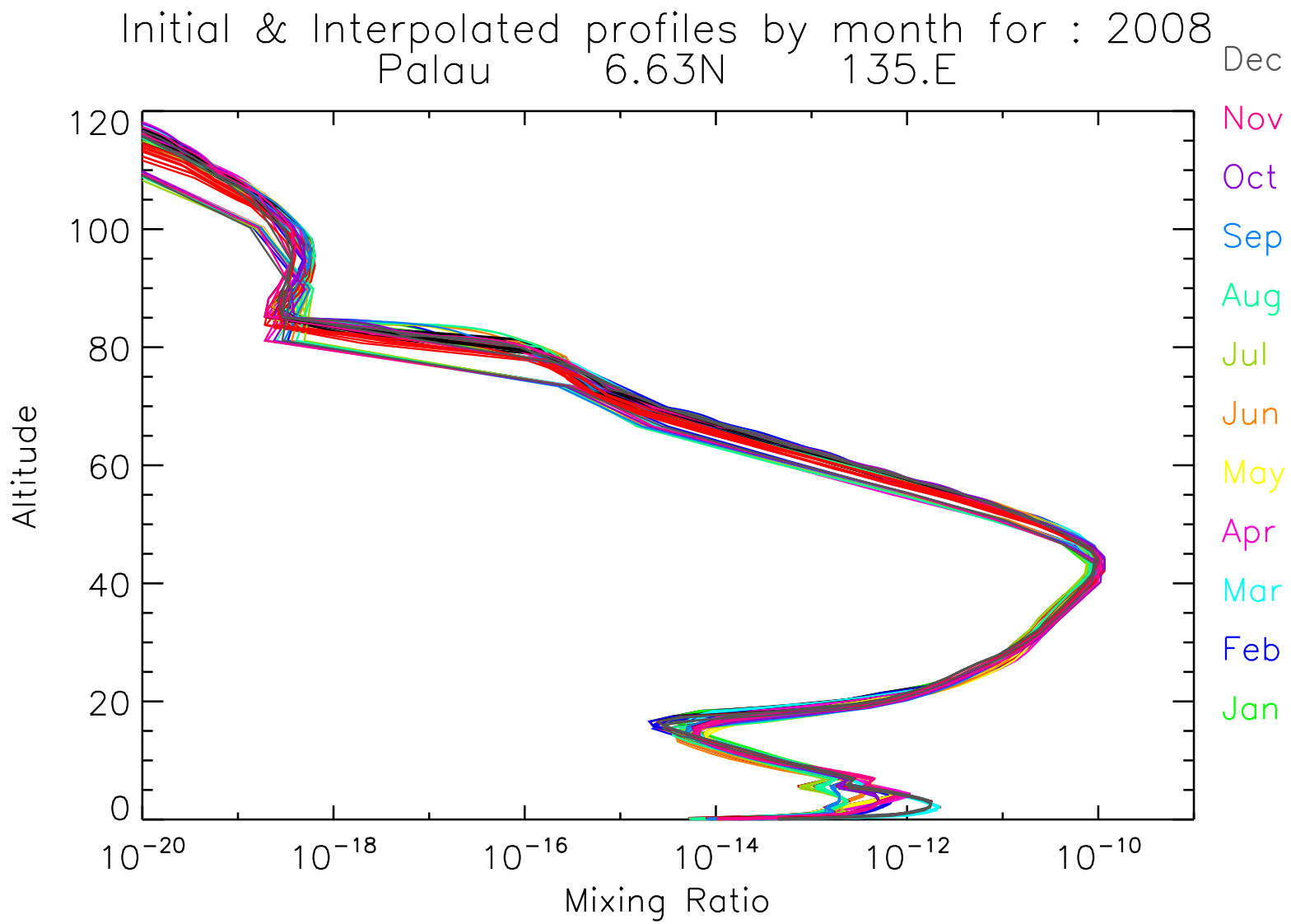
Initial & Interpolated profiles by month for : 2008
Palau 6.63N 135.E
Altitude
120
100
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40
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10^{-20}
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10^{-10}
Mixing Ratio
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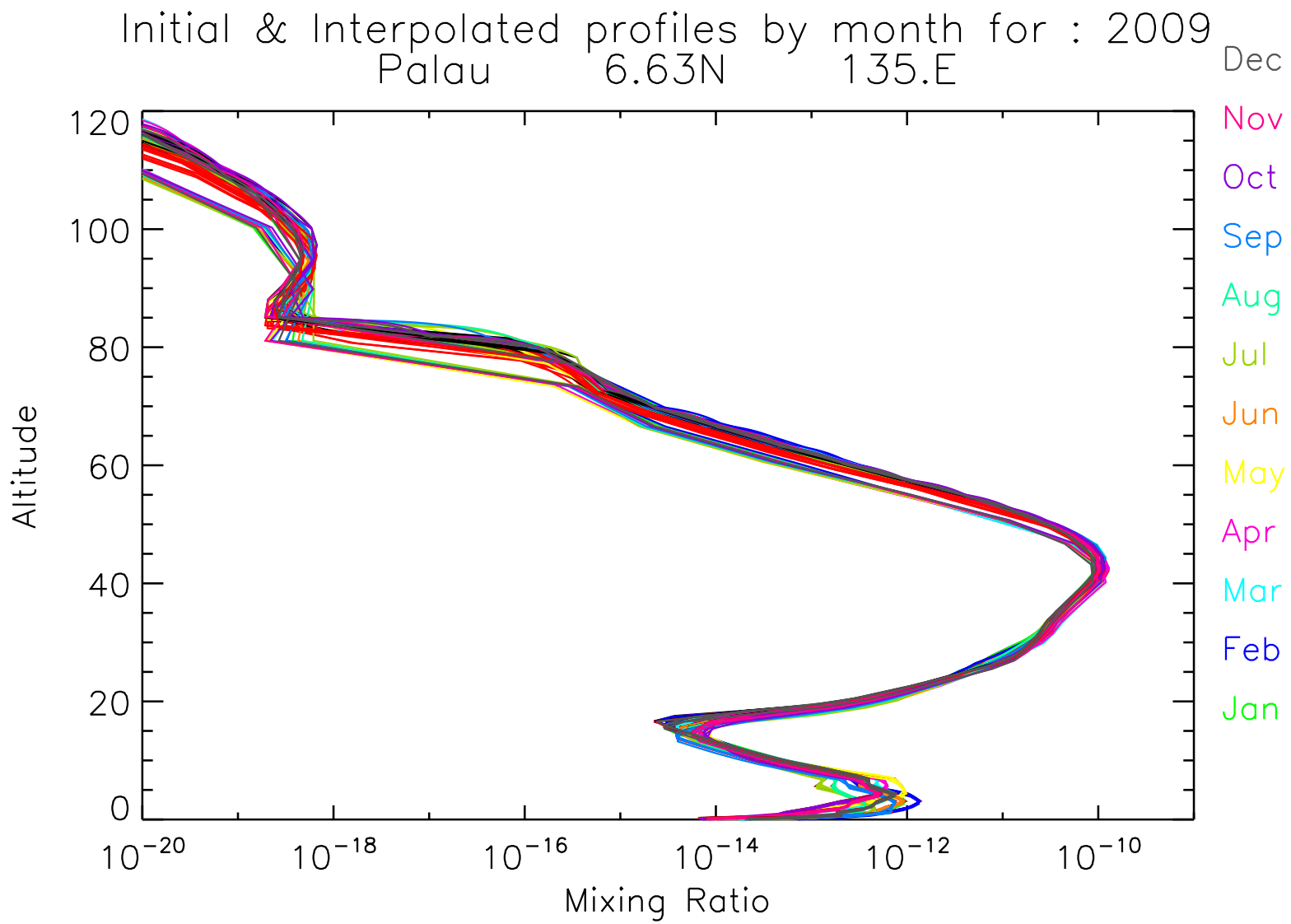
Initial & Interpolated profiles by month for : 2009
Palau 6.63N 135.E
Dec
Nov
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May
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Feb
Jan
Altitude
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10^{-20}
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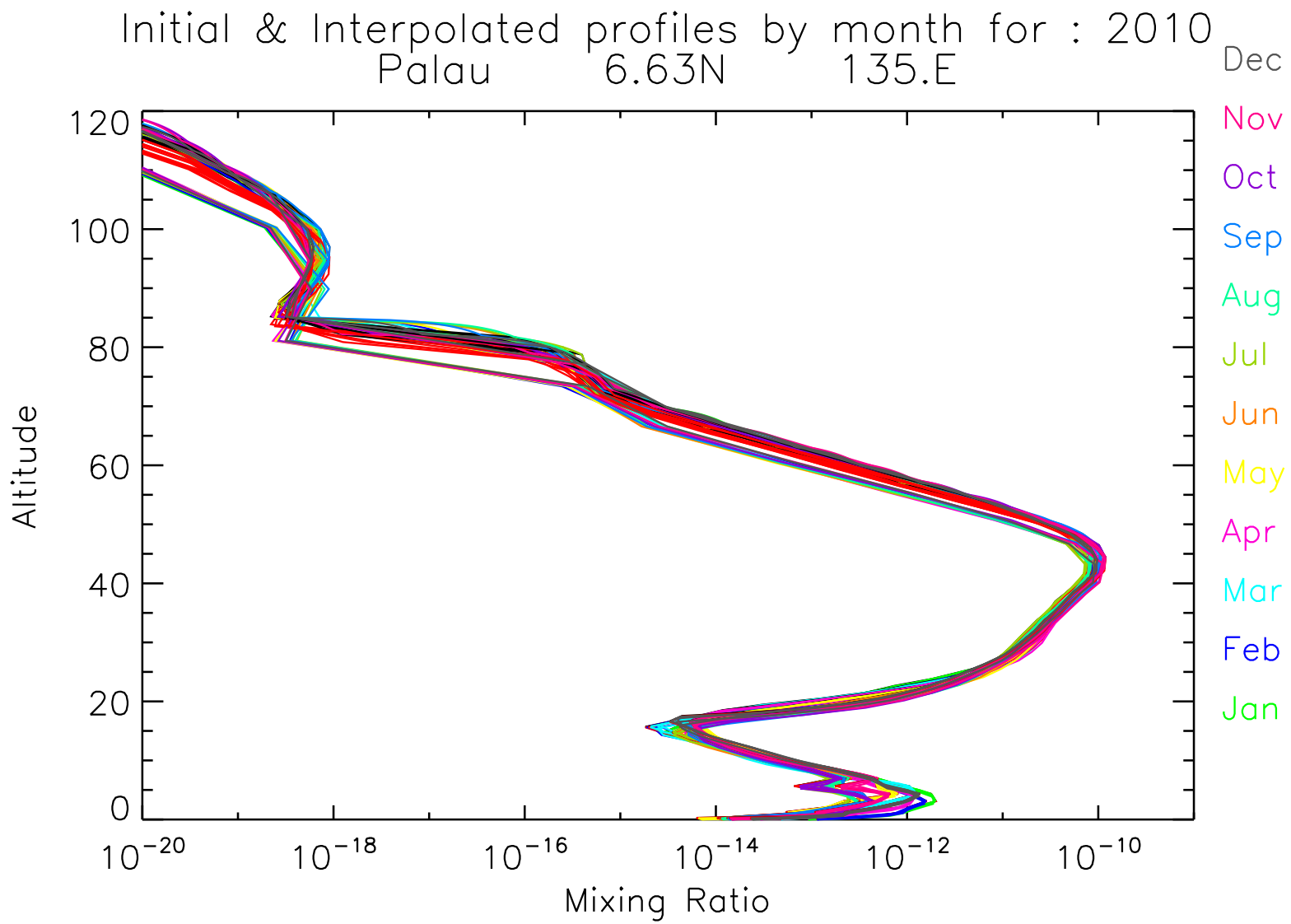
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2010
Palau 6.63N 135.E
Altitude
120
100
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10^{-10}
Mixing Ratio
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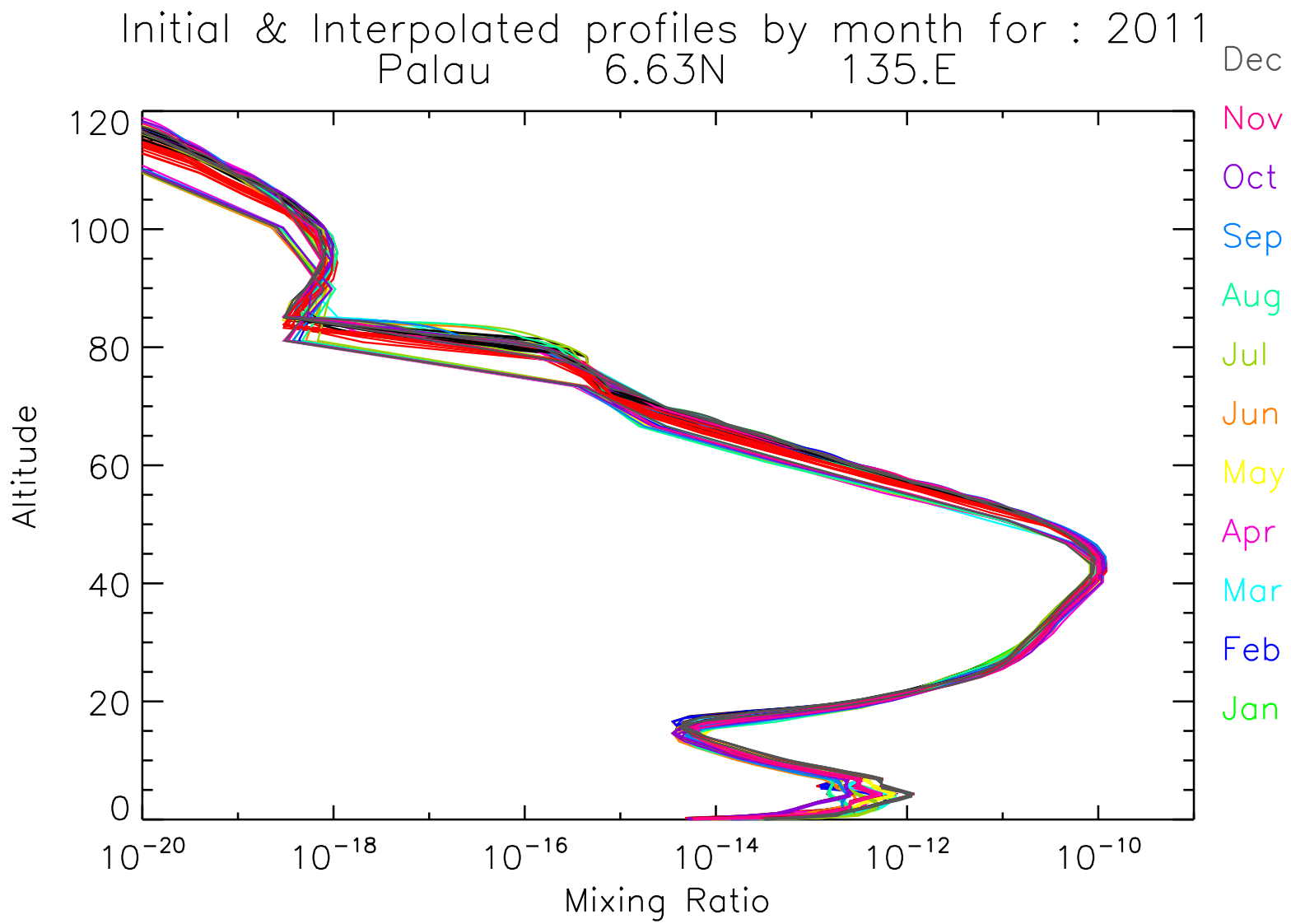
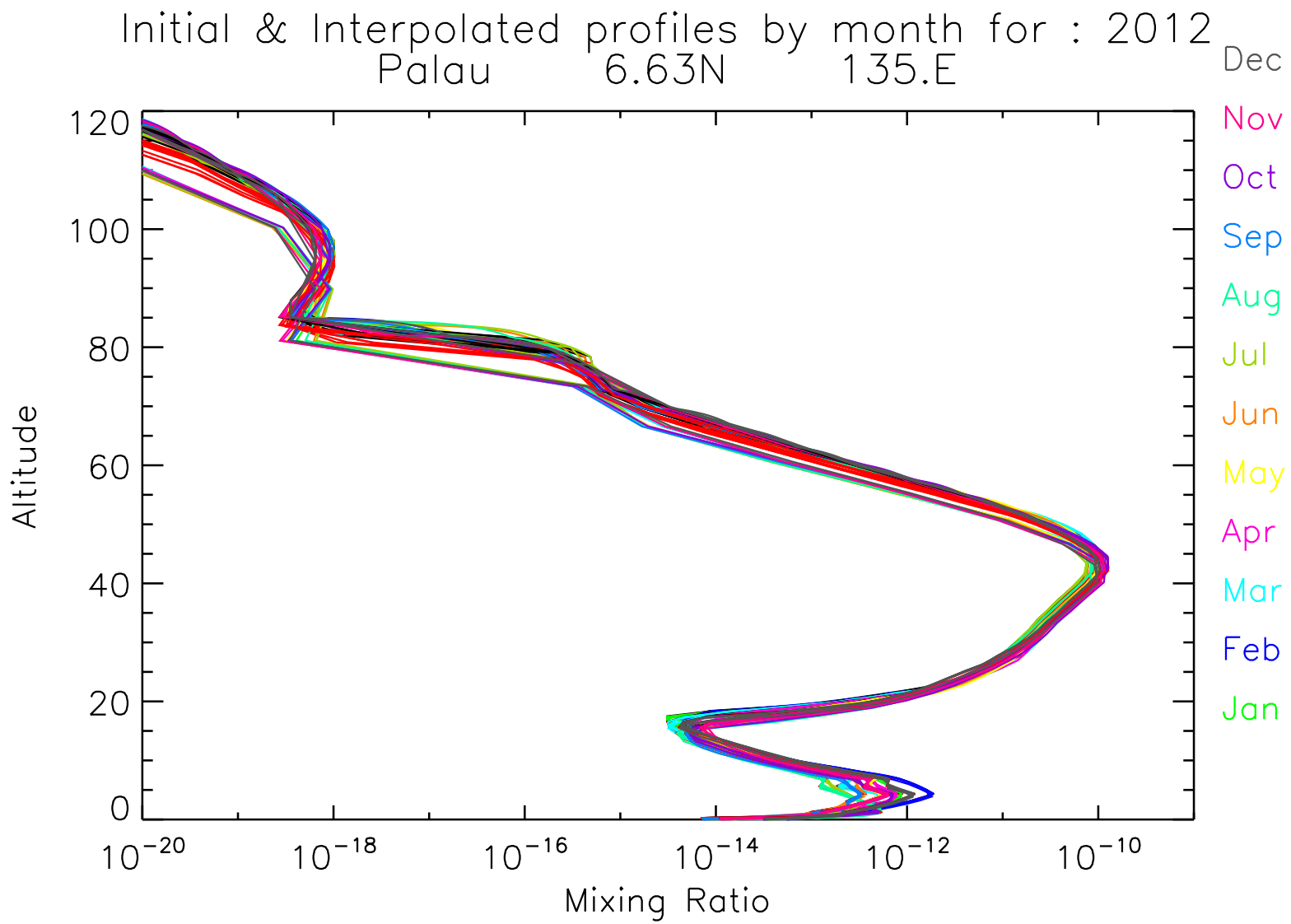
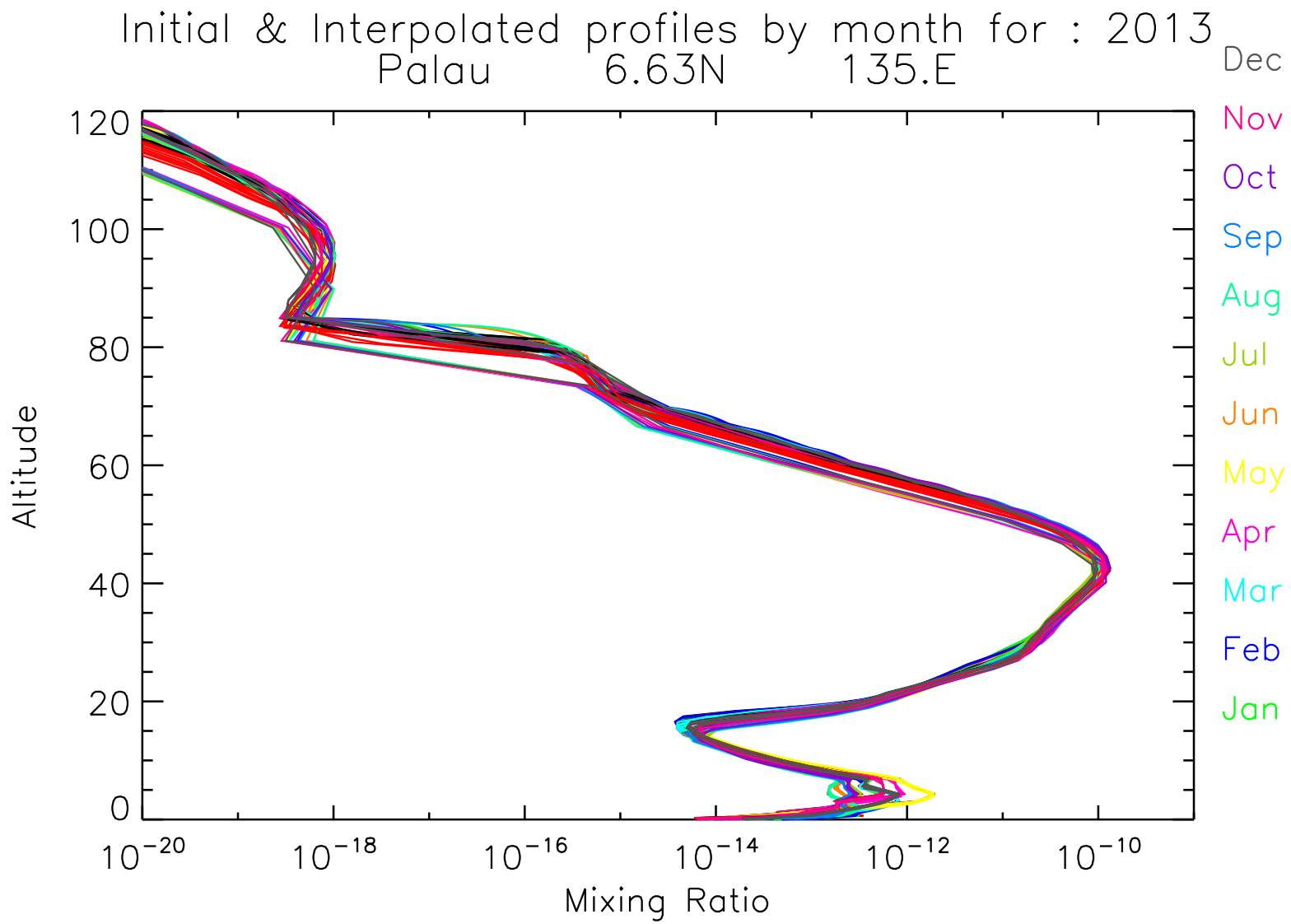
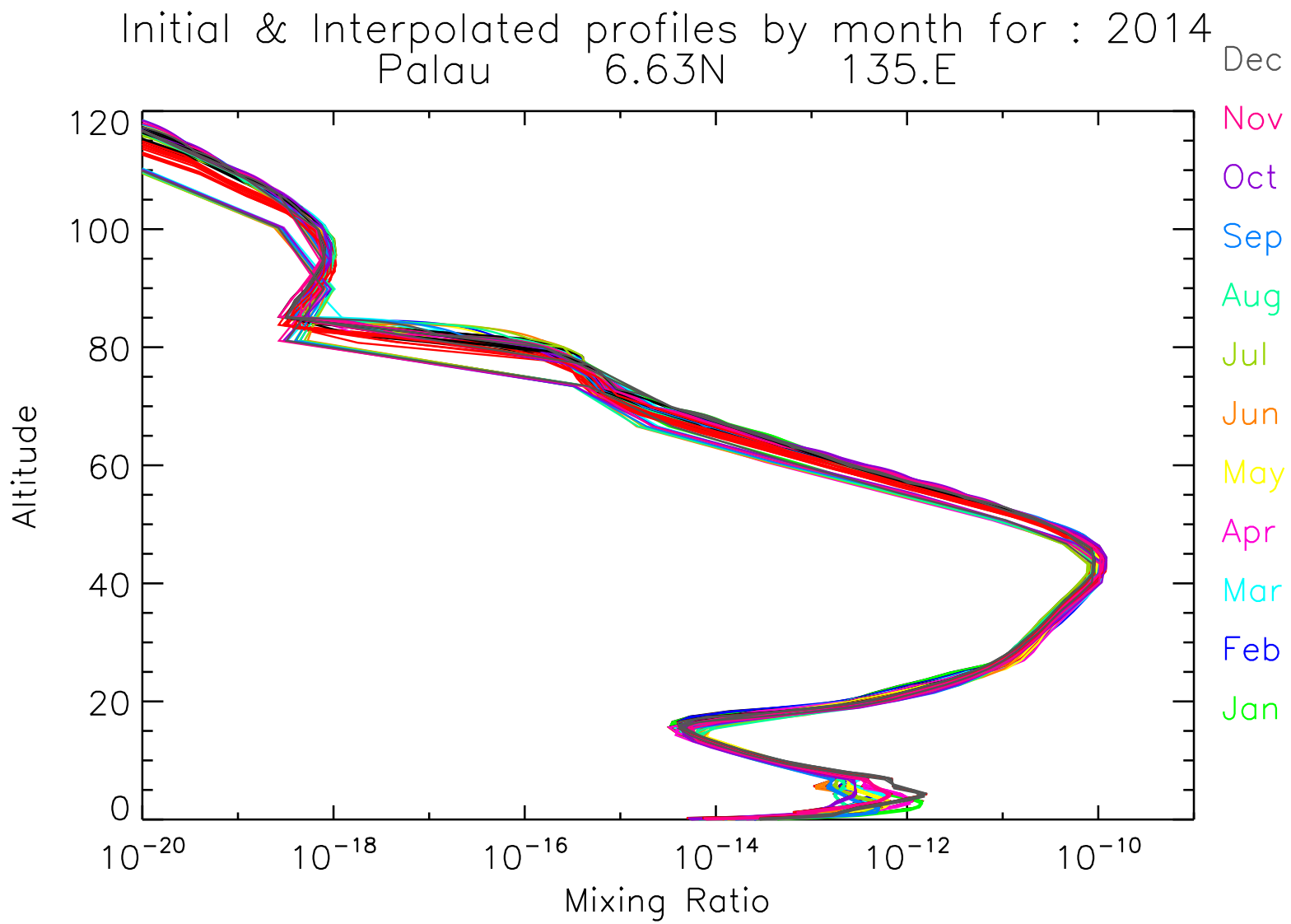
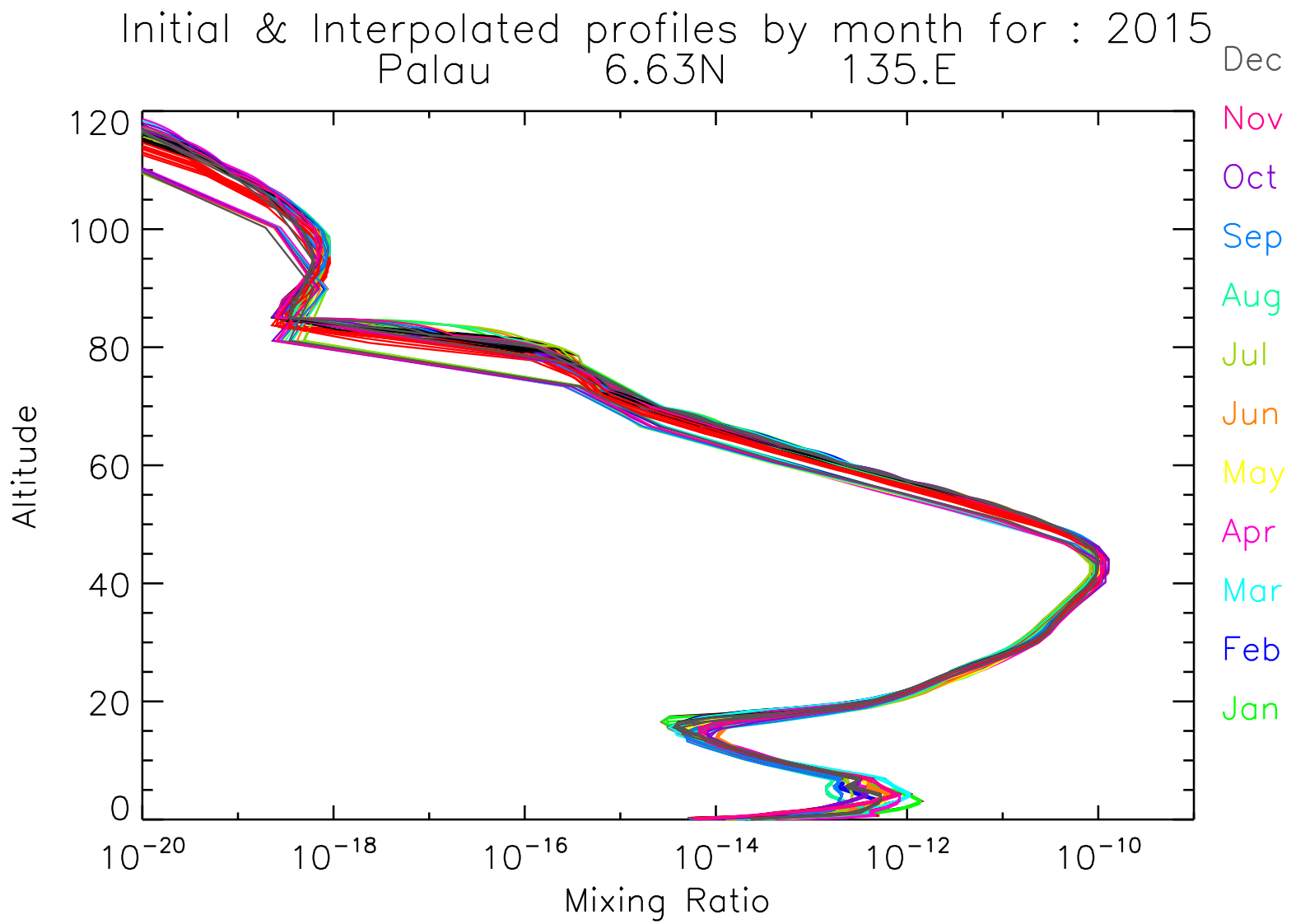
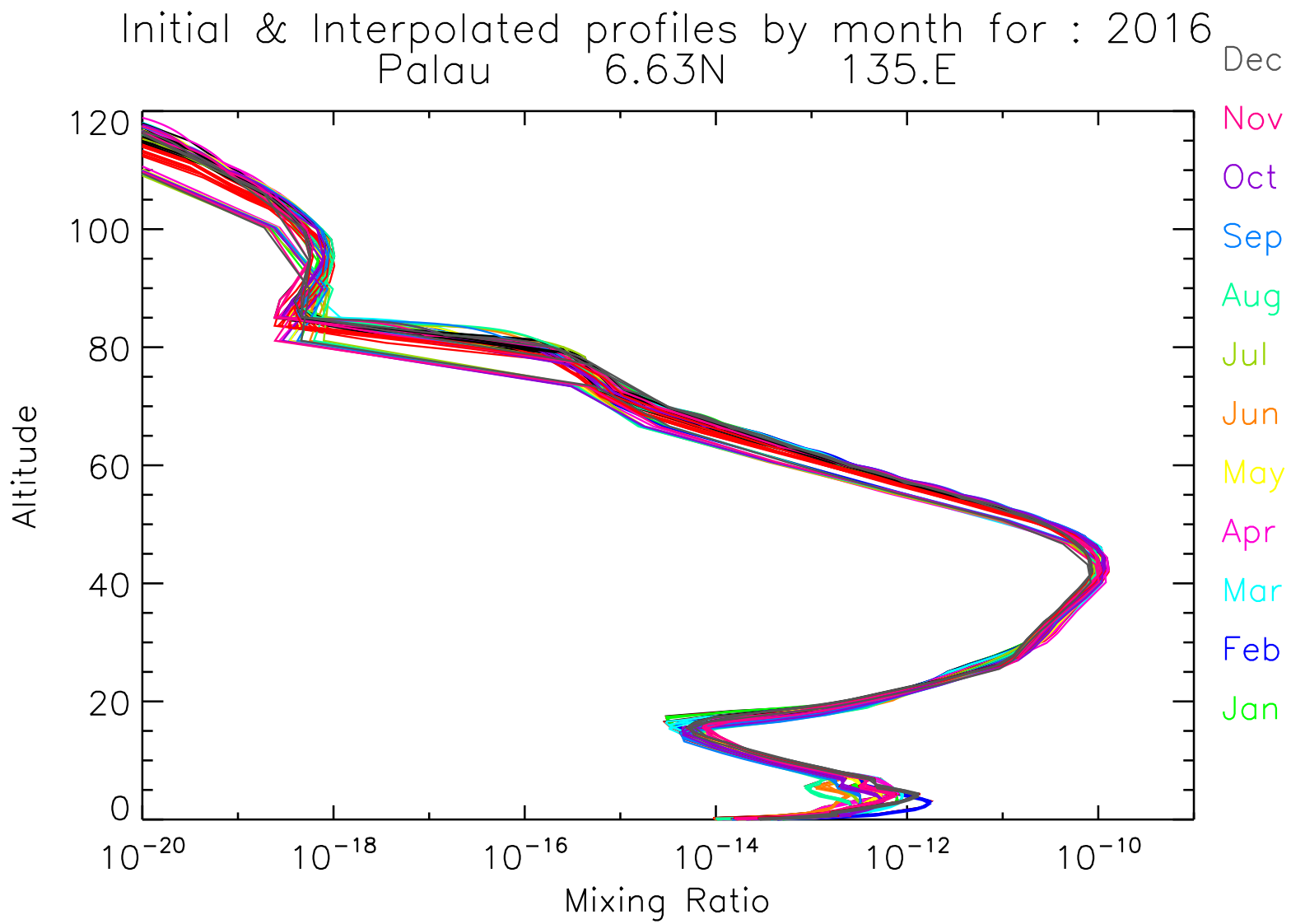

Initial & Interpolated profiles by month for : 2011
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

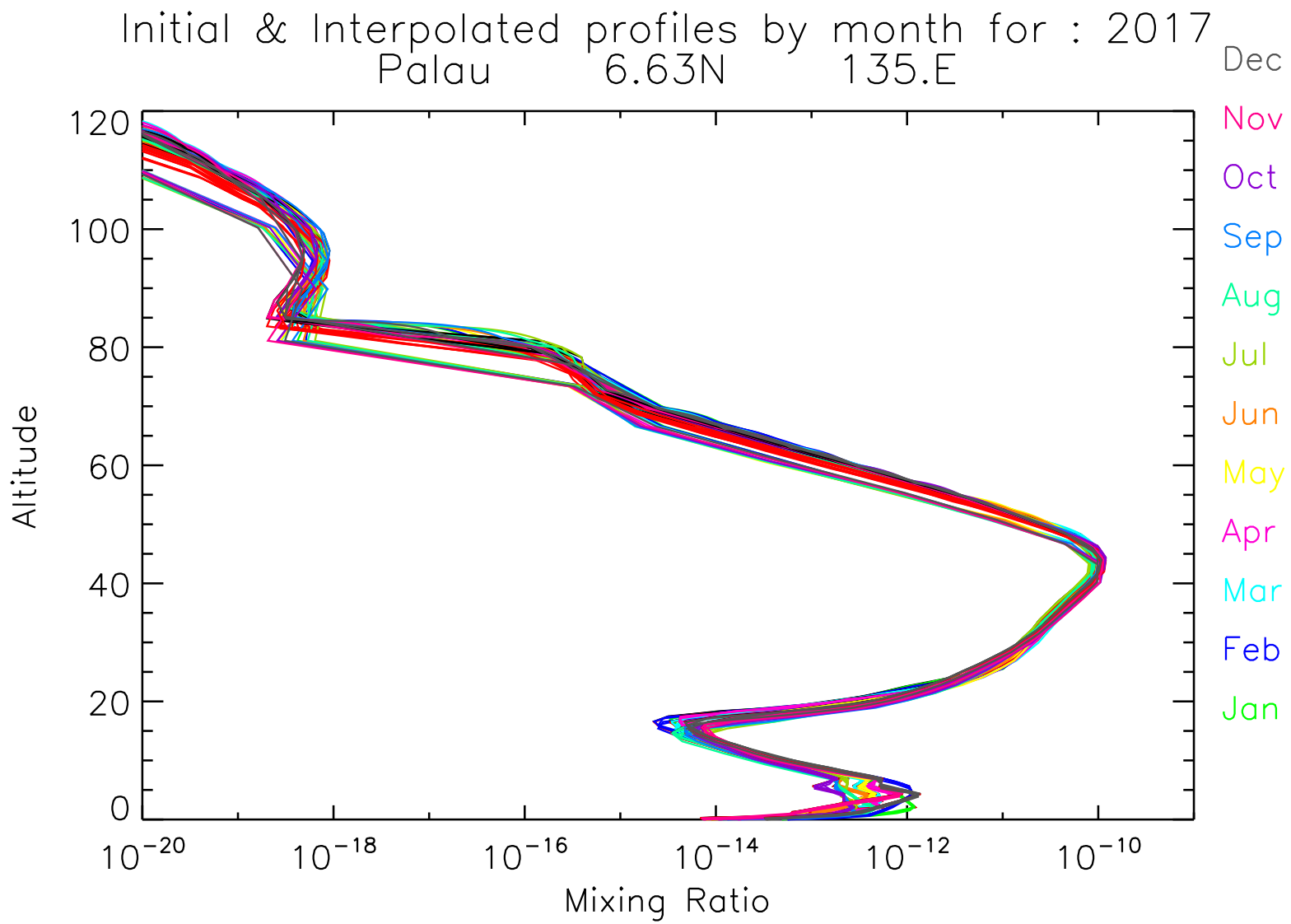

Initial & Interpolated profiles by month for : 2012
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

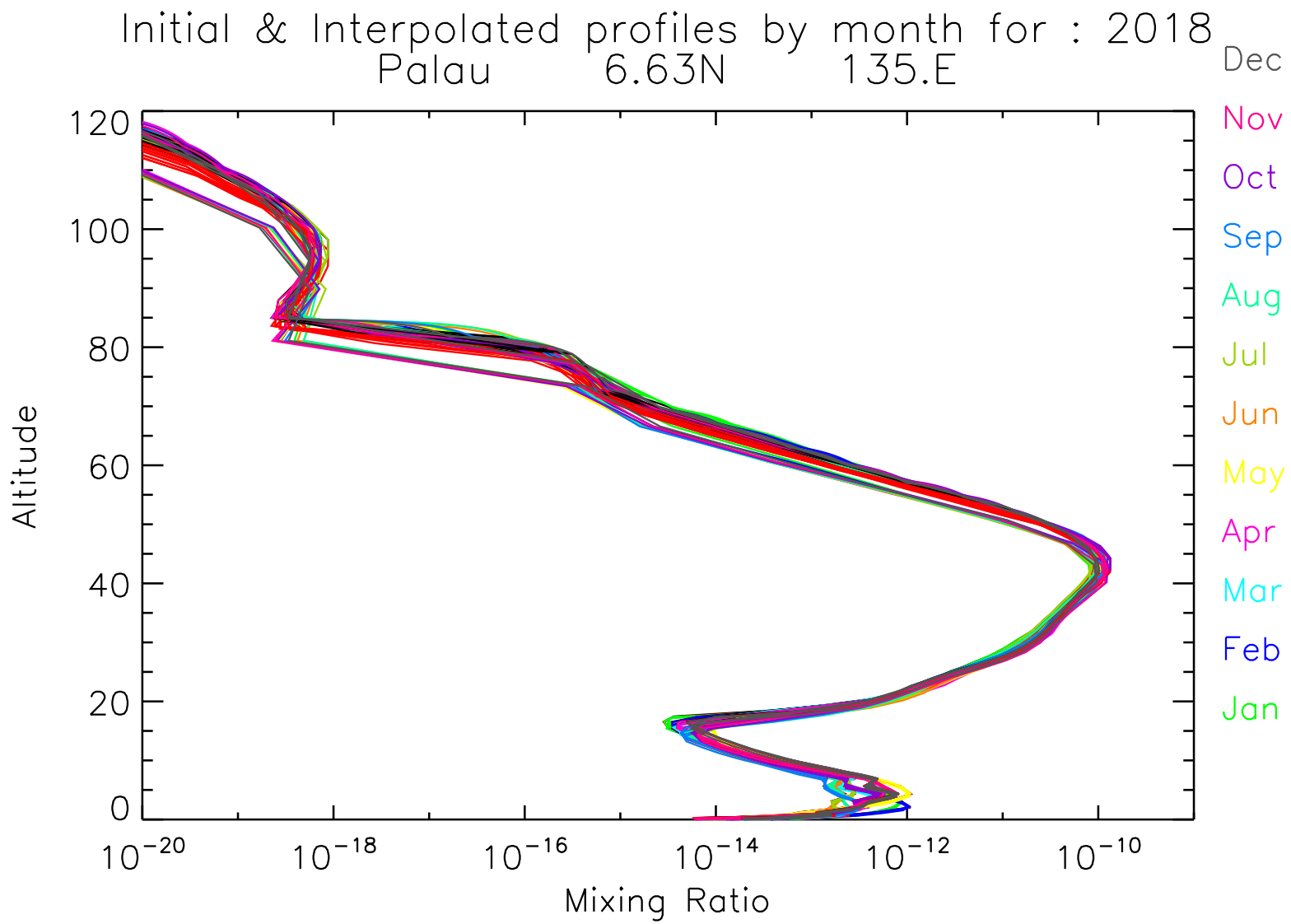

Initial & Interpolated profiles by month for : 2013
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio

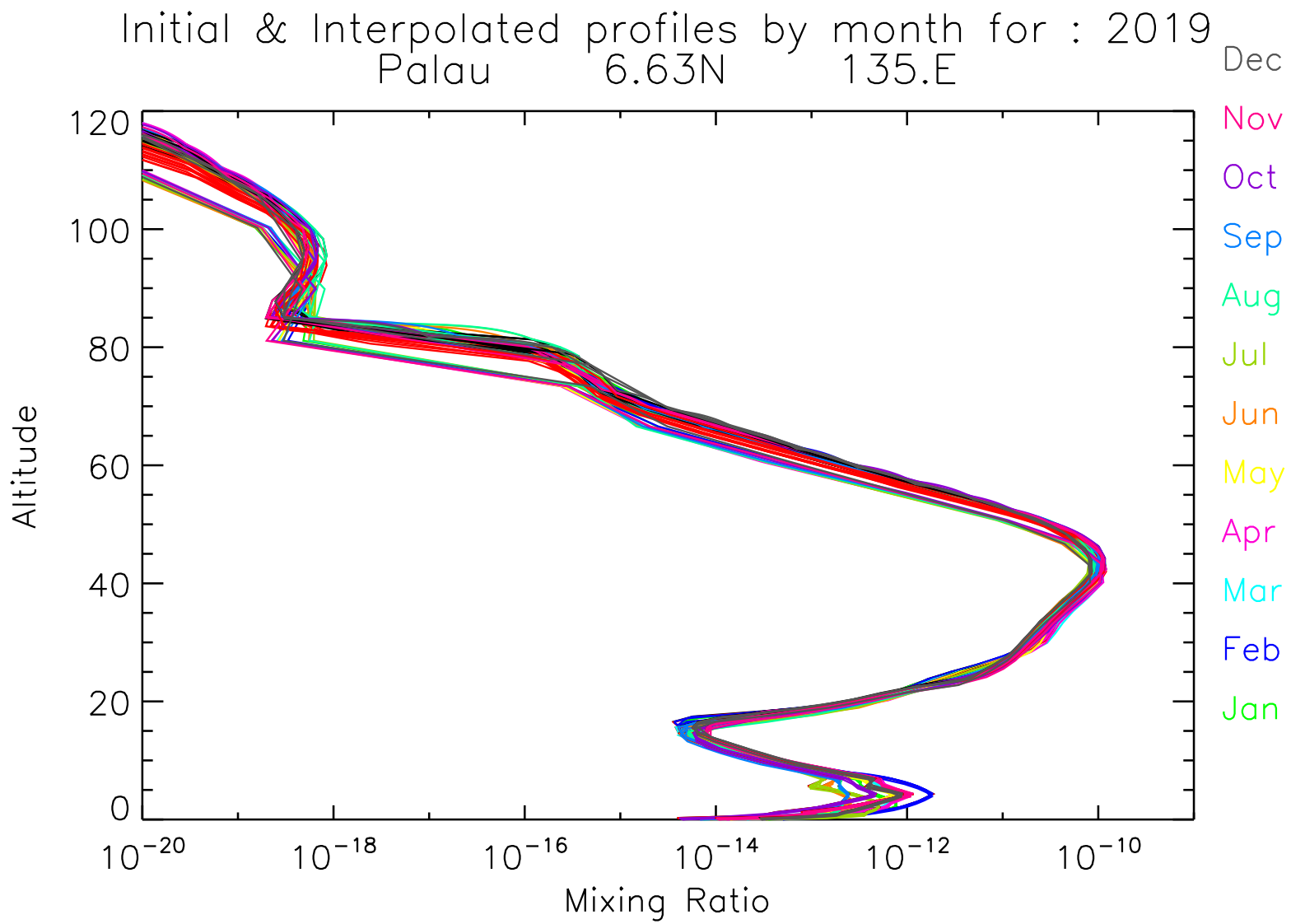

Initial & Interpolated profiles by month for : 2014
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio

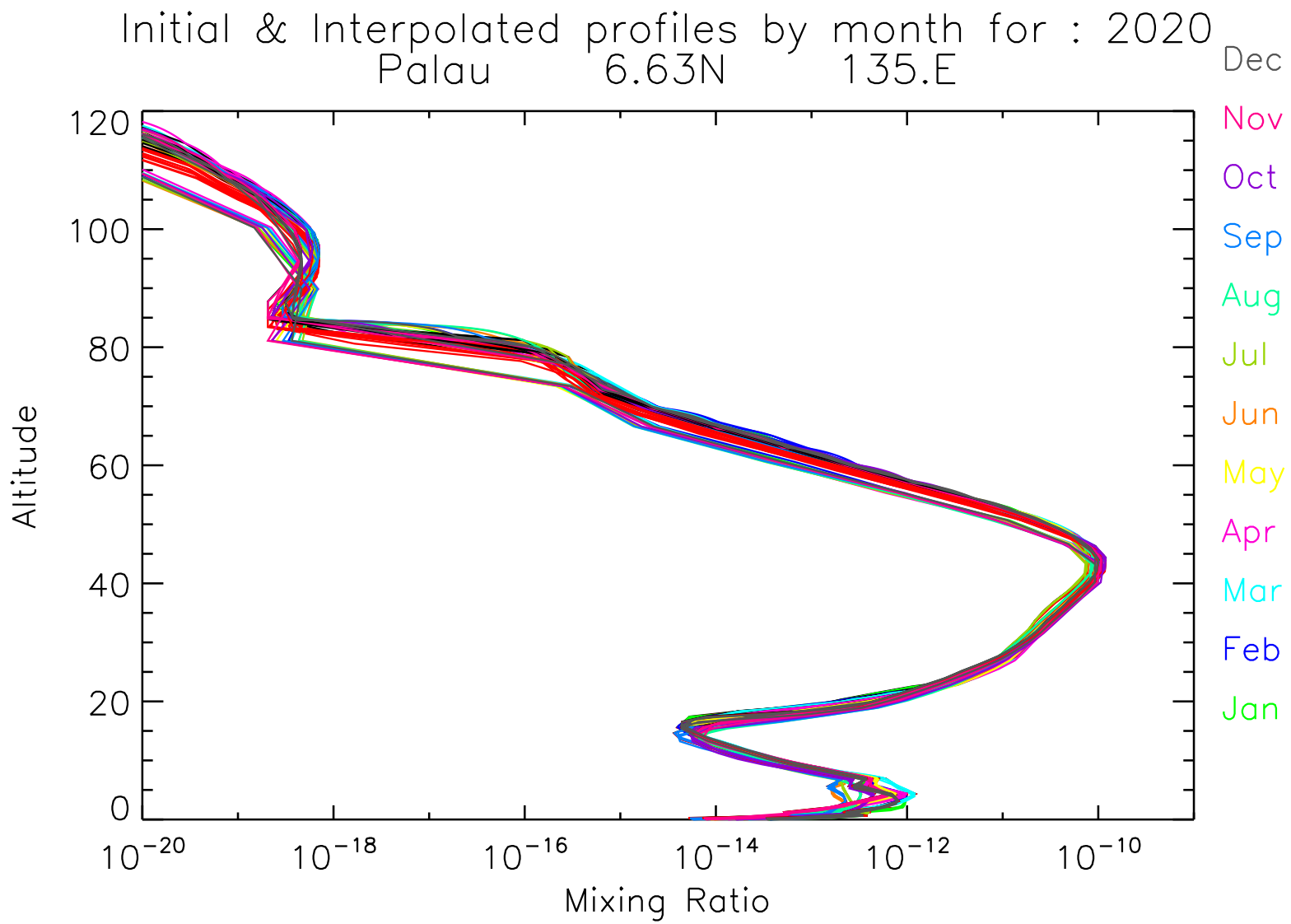

Initial & Interpolated profiles by month for : 2015
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio

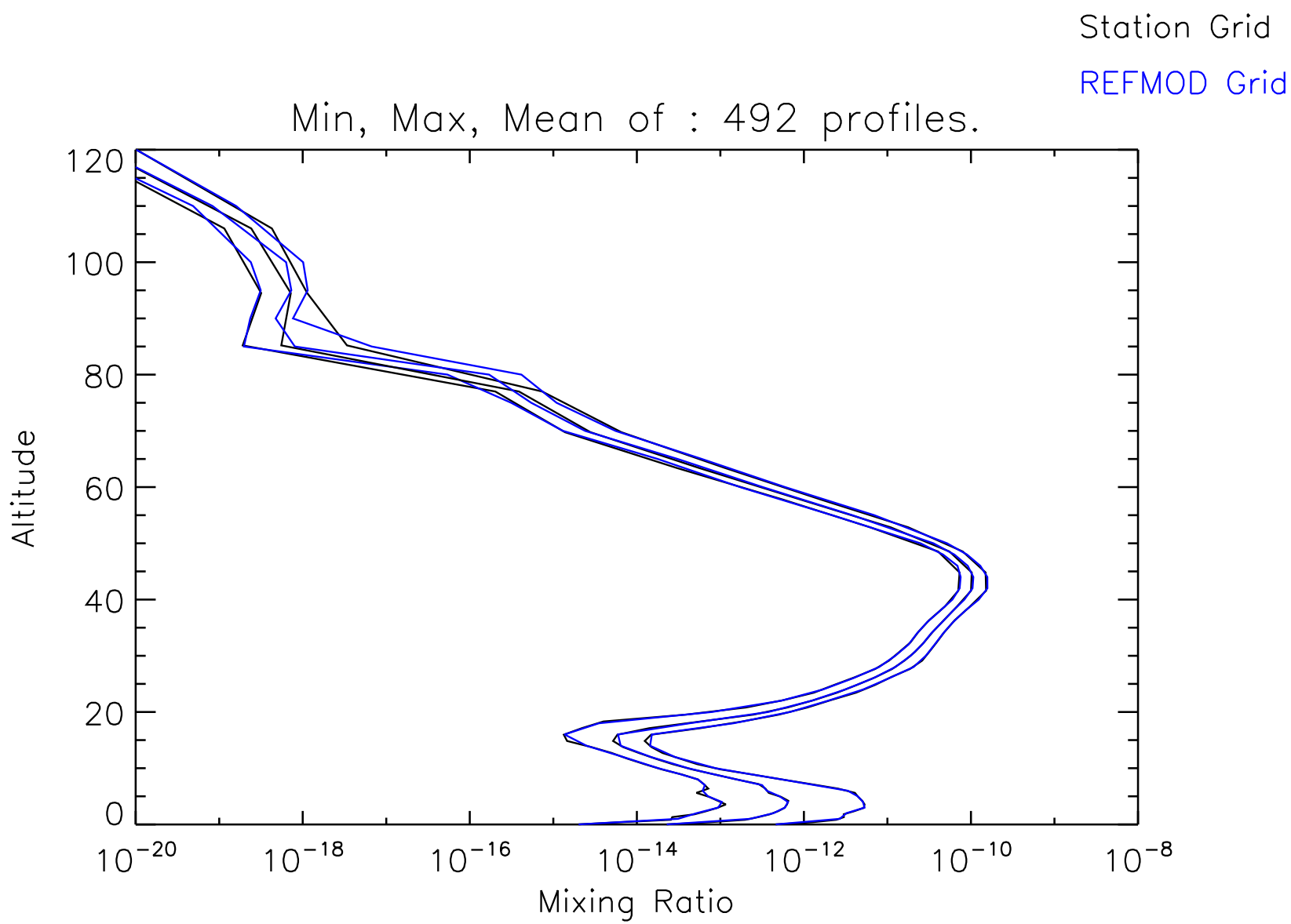

Initial & Interpolated profiles by month for : 2016
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan

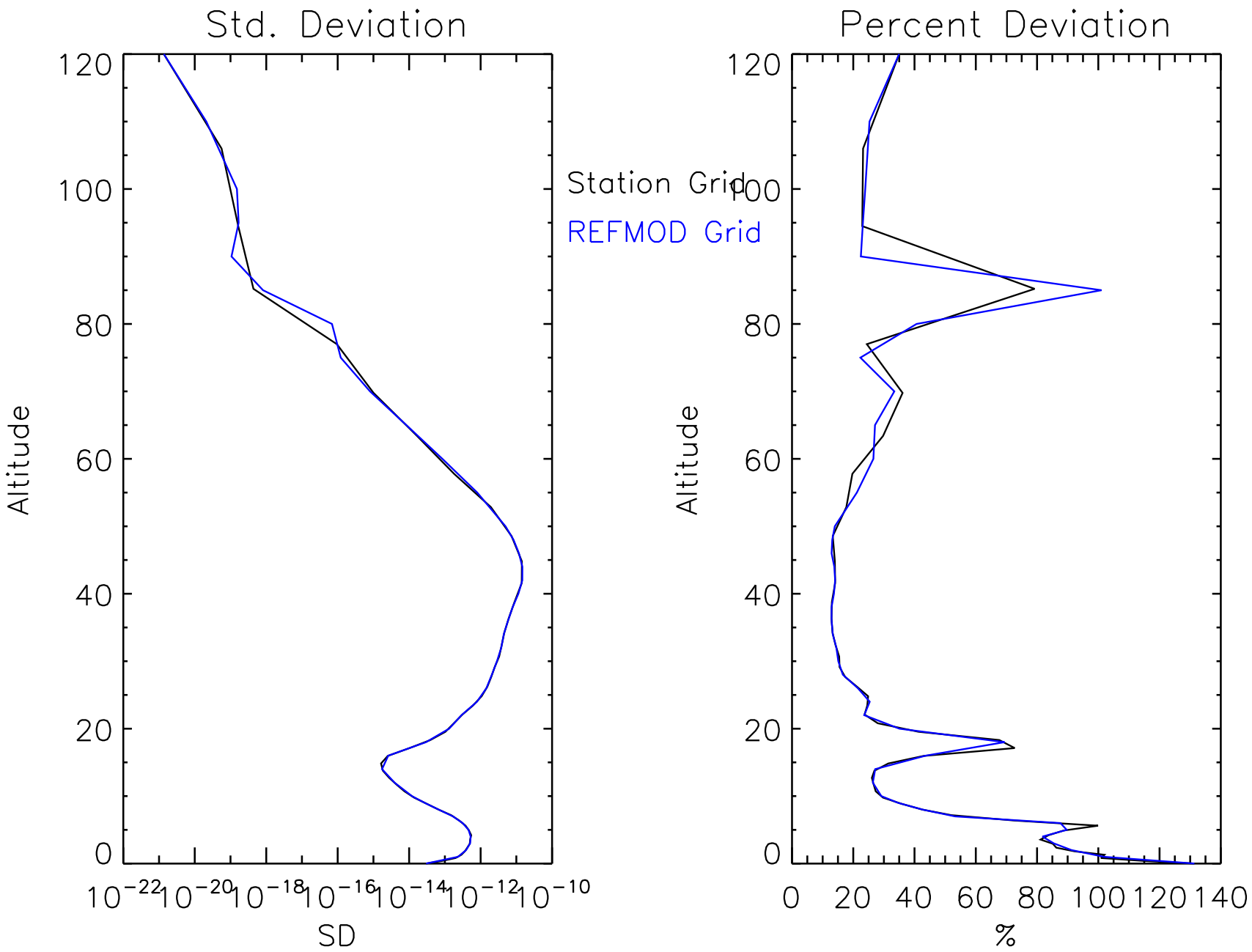

Initial & Interpolated profiles by month for : 2017
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio

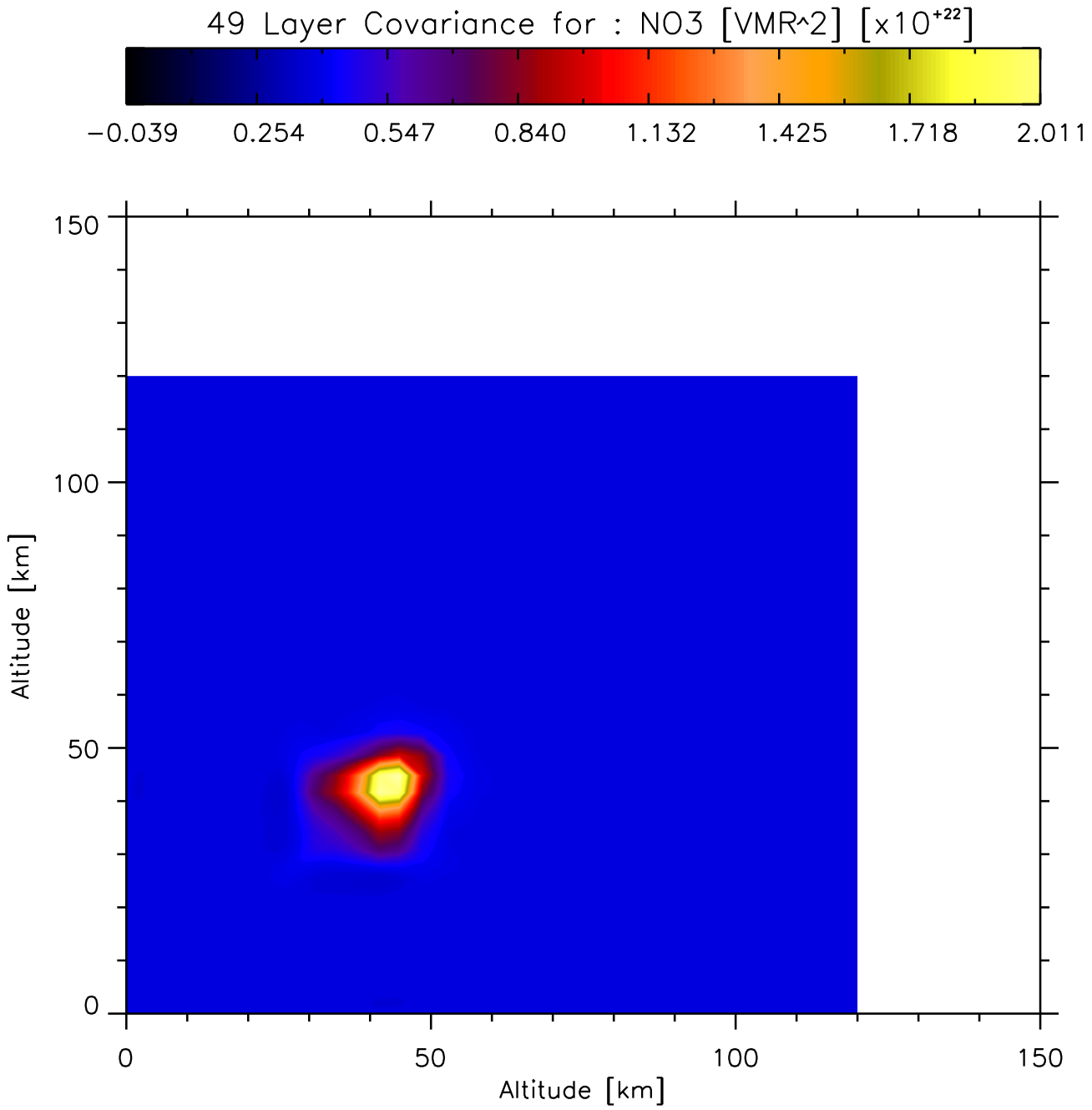

Initial & Interpolated profiles by month for : 2018
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan


Initial & Interpolated profiles by month for : 2019
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio

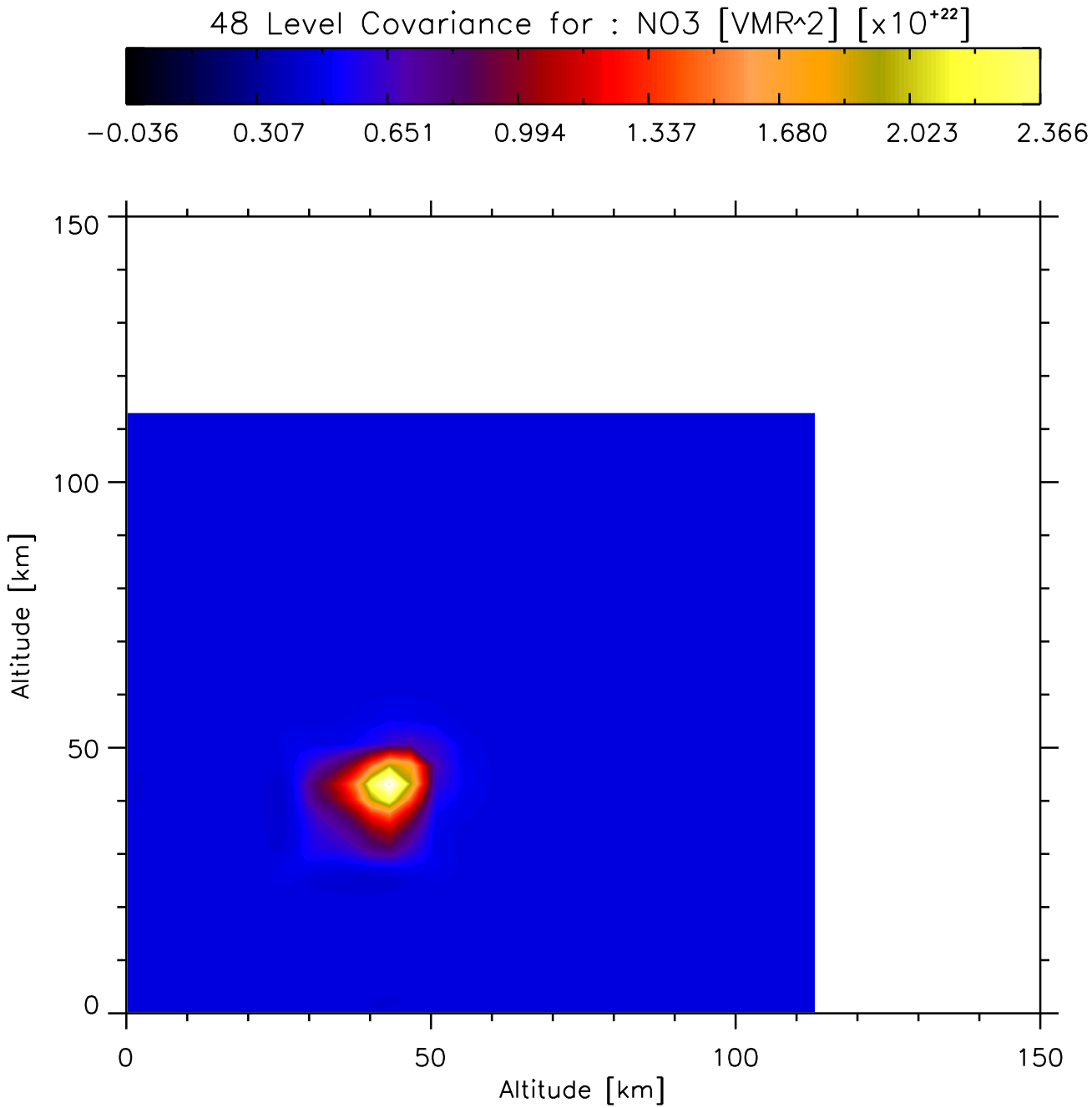

Initial & Interpolated profiles by month for : 2020
Palau 6.63N 135.E
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
Mixing Ratio
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan


Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-20}
10^{-18}
10^{-16}
10^{-14}
10^{-12}
10^{-10}
10^{-8}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-22} 10^{-20} 10^{-18} 10^{-16} 10^{-14} 10^{-12} 10^{-10}
SD
0 20 40 60 80 100 120 140
%


49 Layer Covariance for : NO3 [VMR^2] [x10^+22]
−0.039
0.254
0.547
0.840
1.132
1.425
1.718
2.011
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

49 Layer Covariance for : NO3 [VMR^2] [x10^-22]
2.5
2.0
1.5
1.0
0.5
0.0
Y Altitude
0
20
40
60
80
100
120
140
160
X Altitude
0
50
100
150


48 Level Covariance for : NO3 [VMR^2] [x10^+22]
−0.036
0.307
0.651
0.994
1.337
1.680
2.023
2.366
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]

48 Level Covariance for : NO3 [VMR^2] [x10^27]
2.5
2.0
1.5
1.0
0.5
0.0
Y Altitude
0
30
60
90
120
X Altitude
0
50
100
150