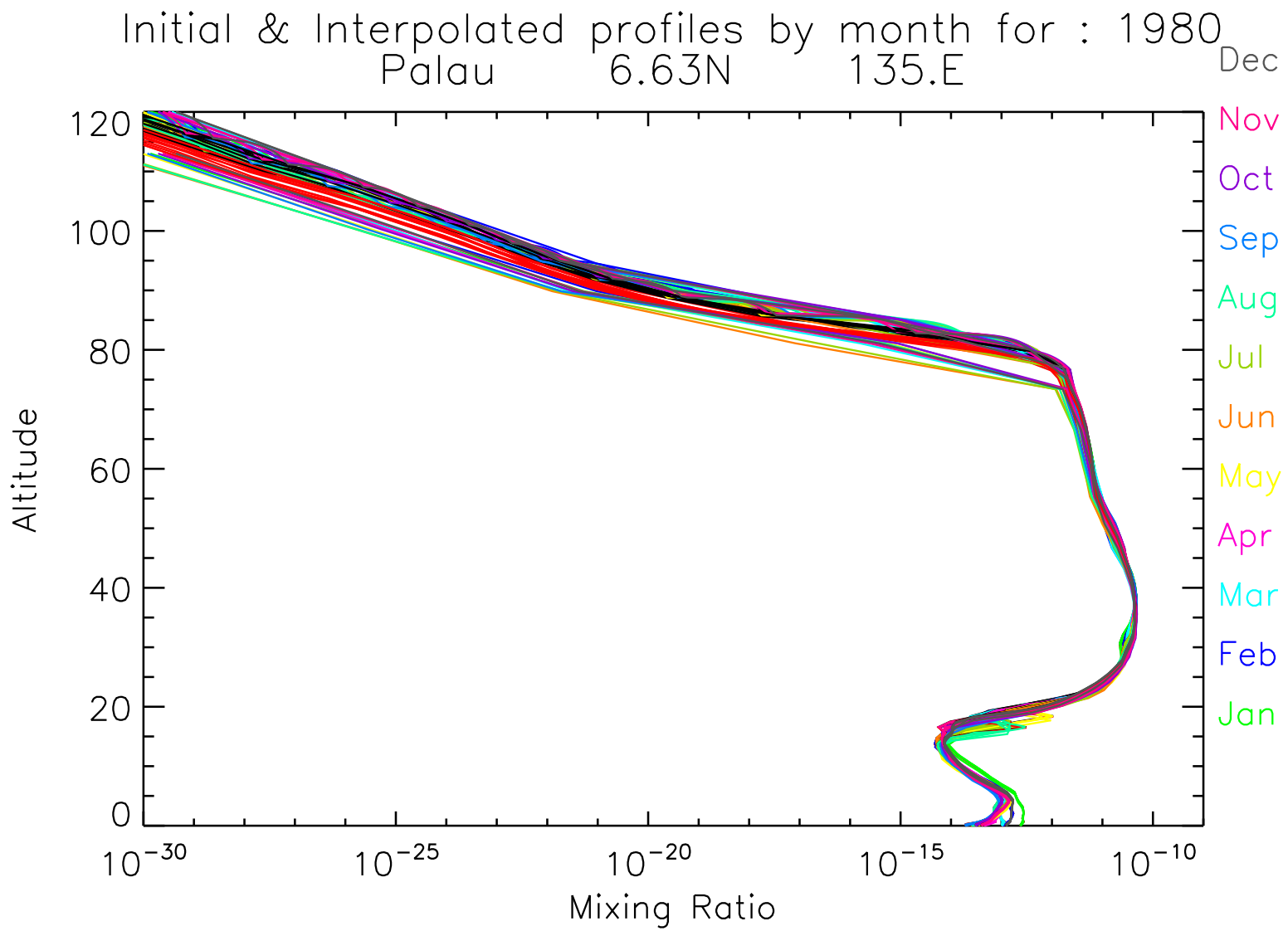
Initial & Interpolated profiles by month for : 1980
Palau 6.63N 135.E
Dec
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Altitude
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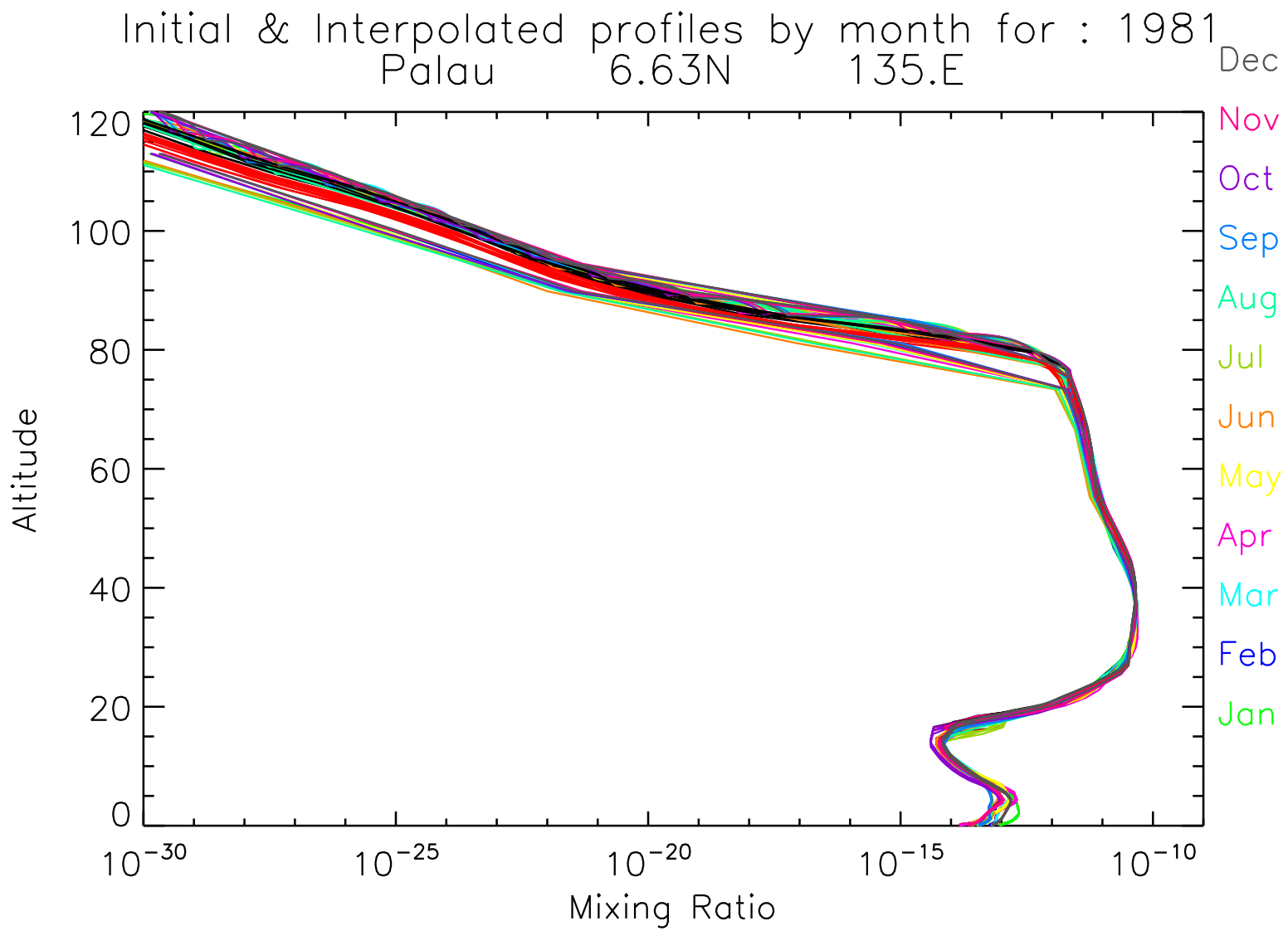
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1981
Palau 6.63N 135.E
Dec
Nov
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Altitude
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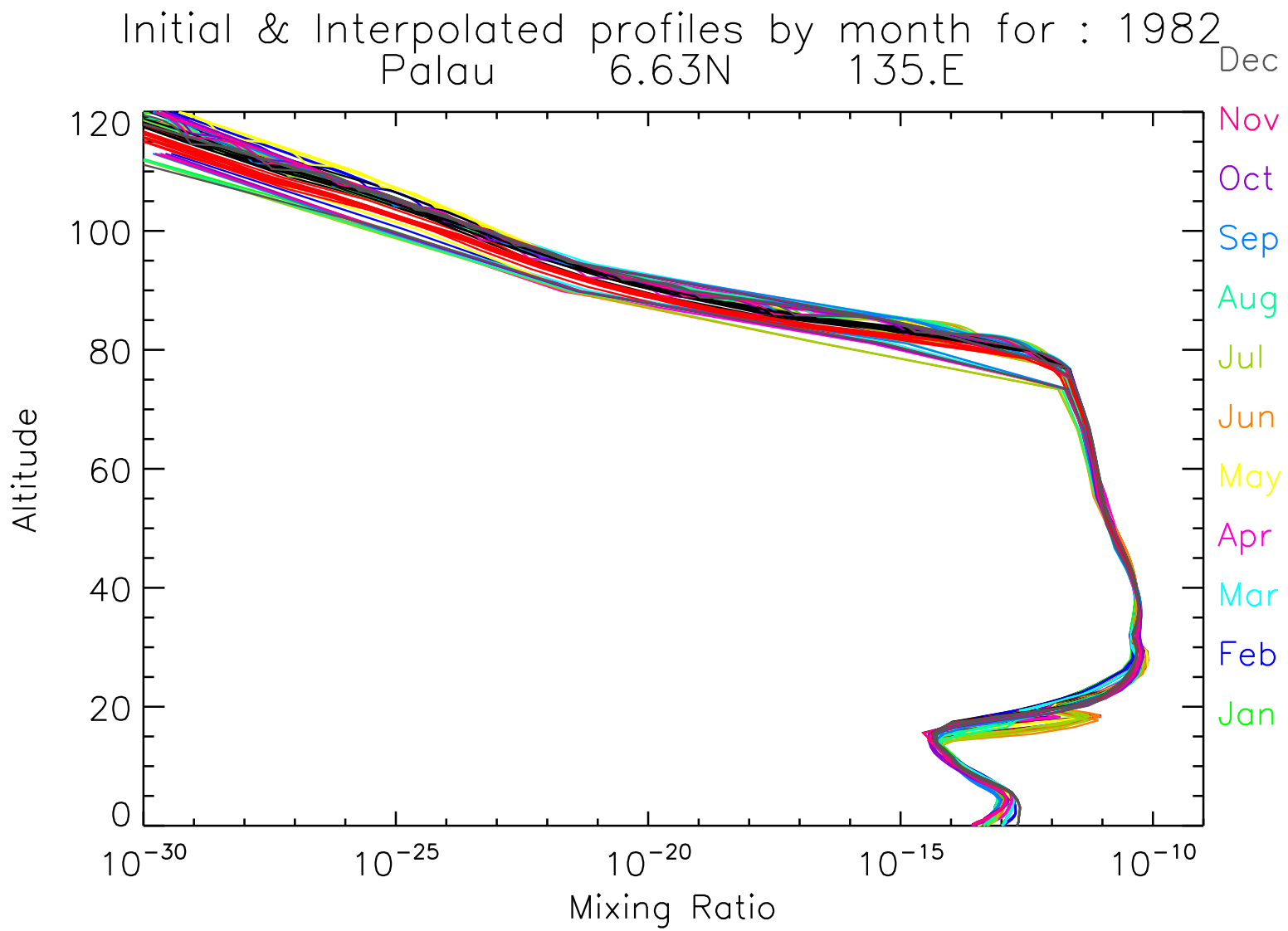
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1982
Palau 6.63N 135.E
Dec
Nov
Oct
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Apr
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Jan
Altitude
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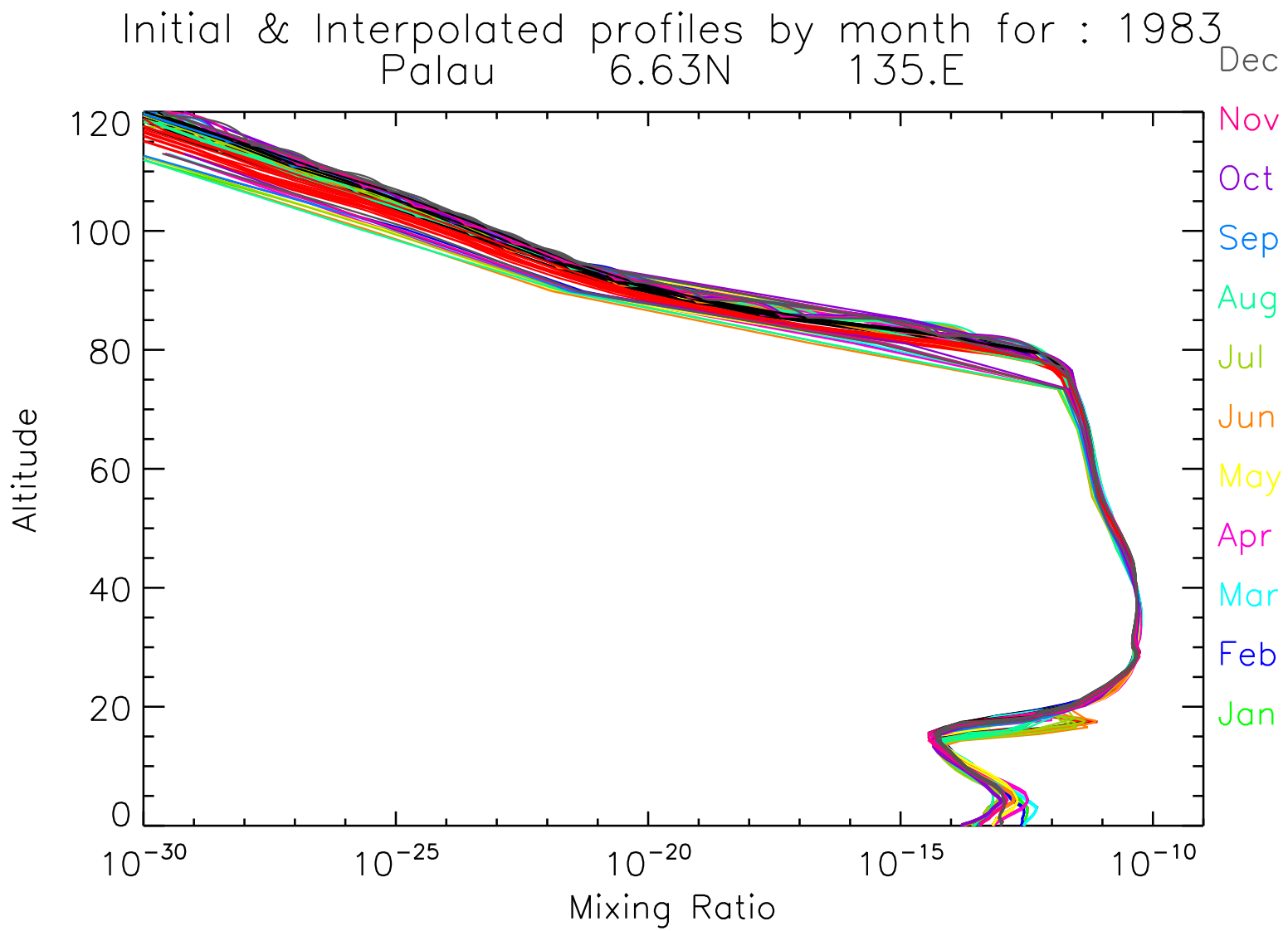
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1983
Palau 6.63N 135.E
Dec
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Altitude
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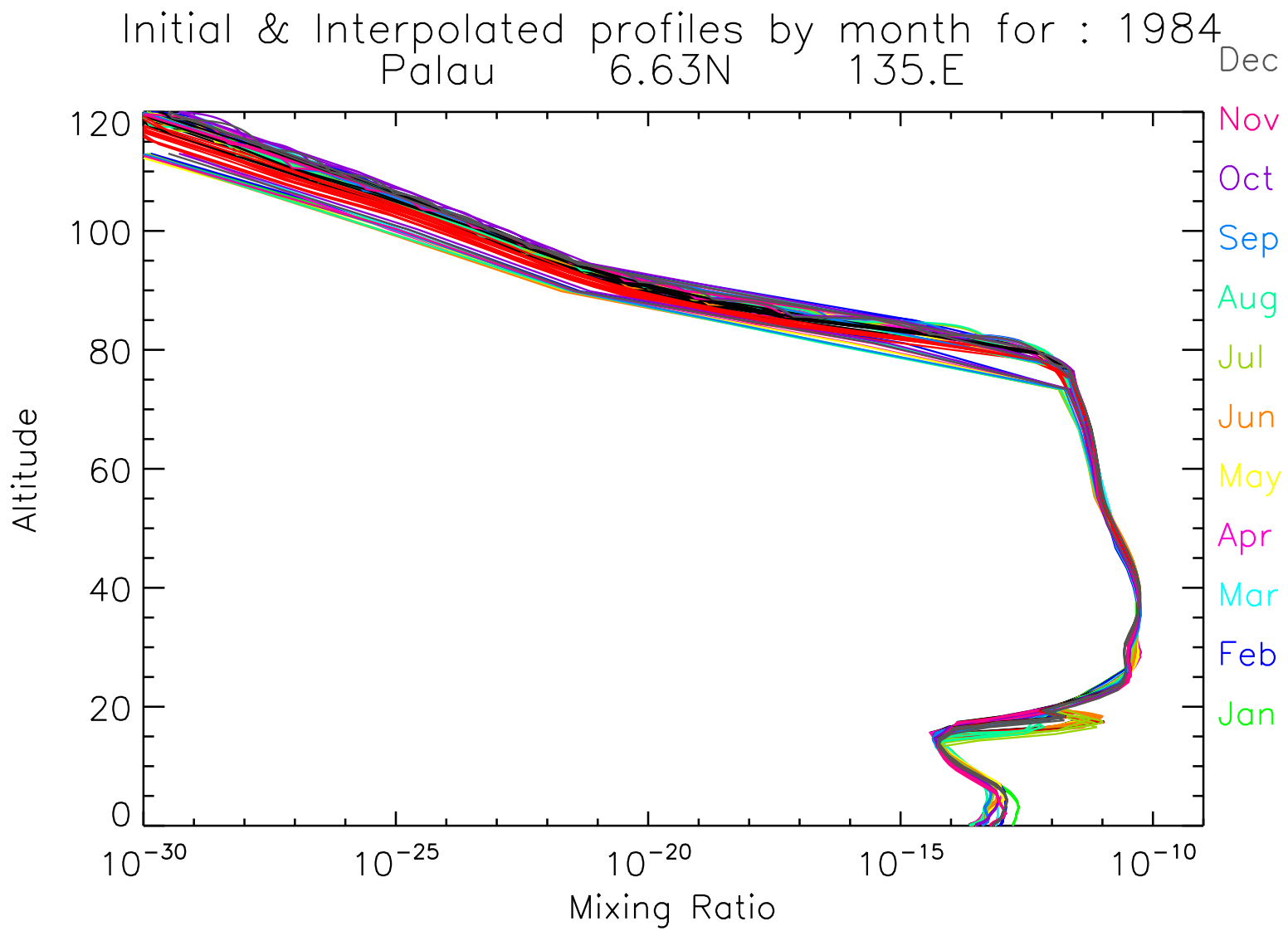
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1984
Palau 6.63N 135.E
Dec
Nov
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Altitude
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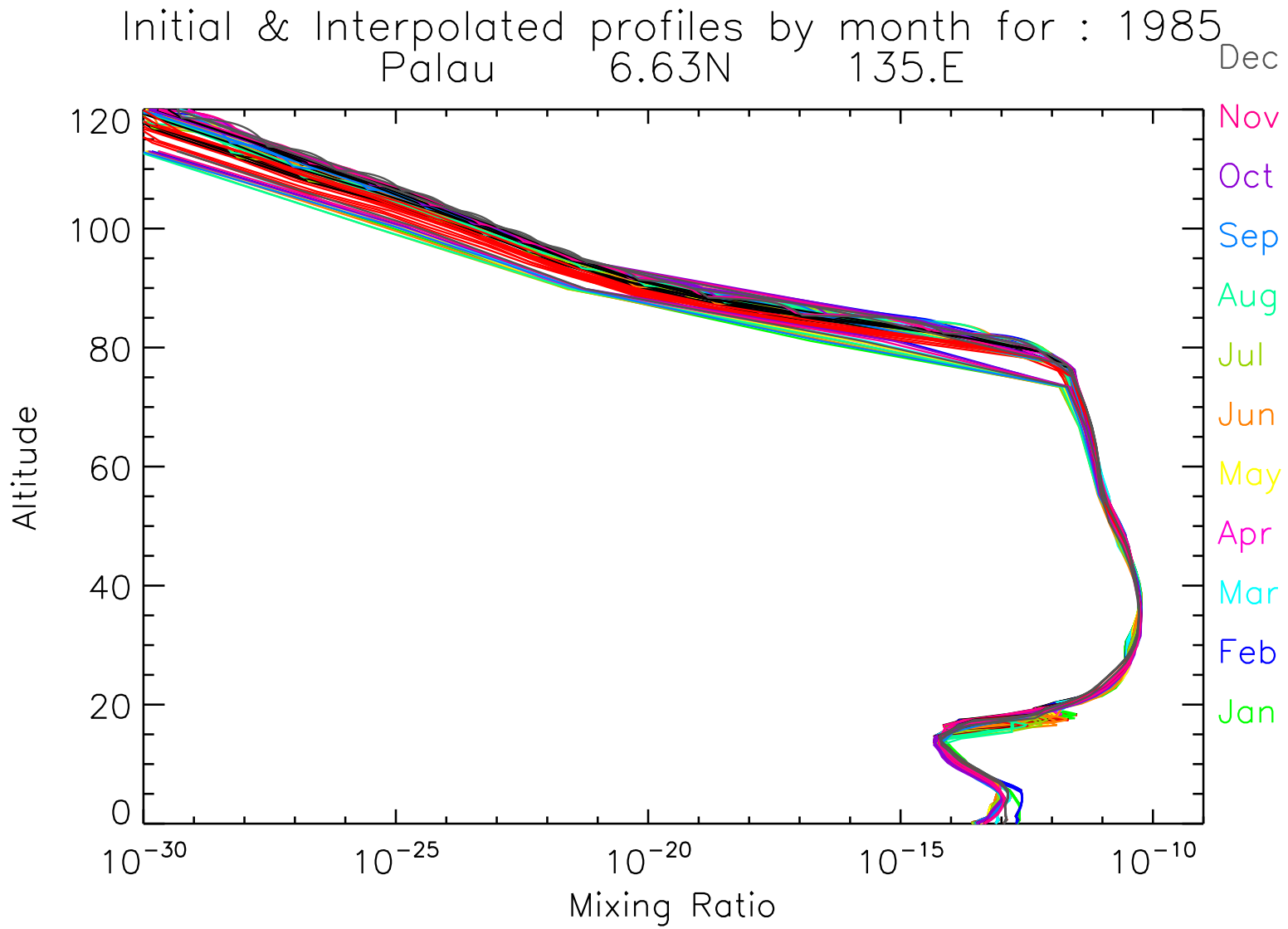
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1985
Palau 6.63N 135.E
Dec
Nov
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Altitude
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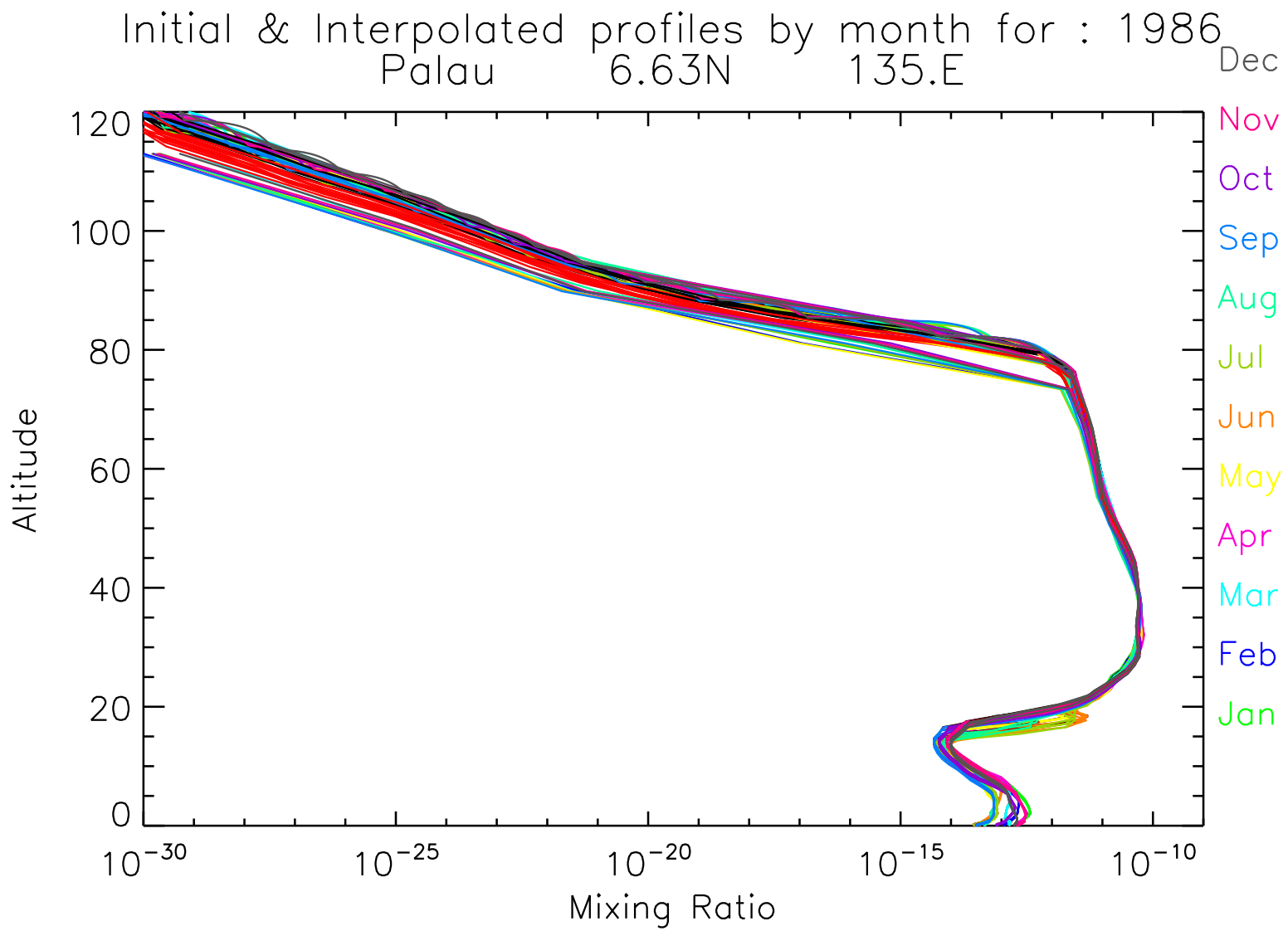
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1986
Palau 6.63N 135.E
Dec
Nov
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Altitude
10^{-30}
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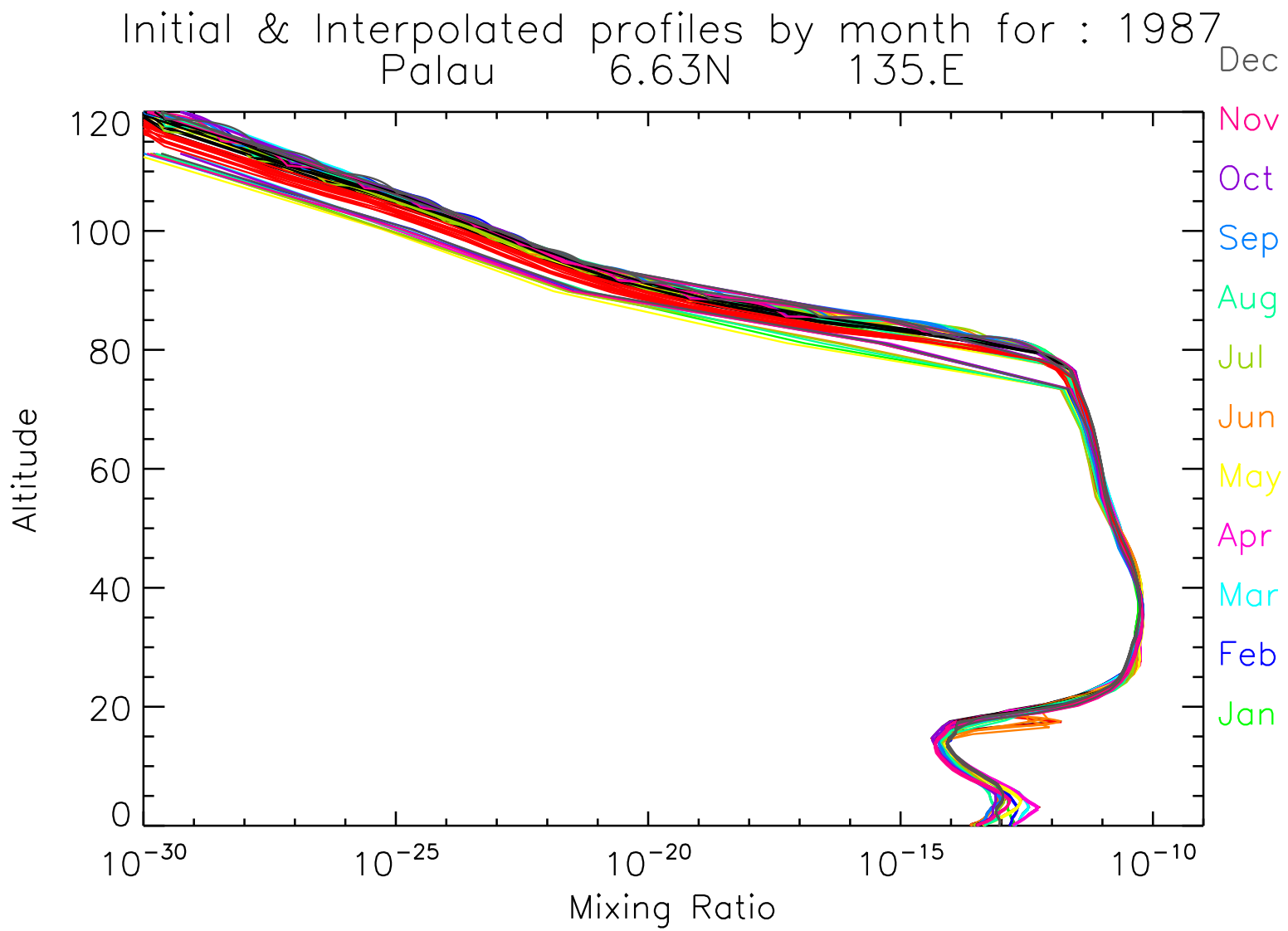
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1987
Palau 6.63N 135.E
Dec
Nov
Oct
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Altitude
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10^{-15}
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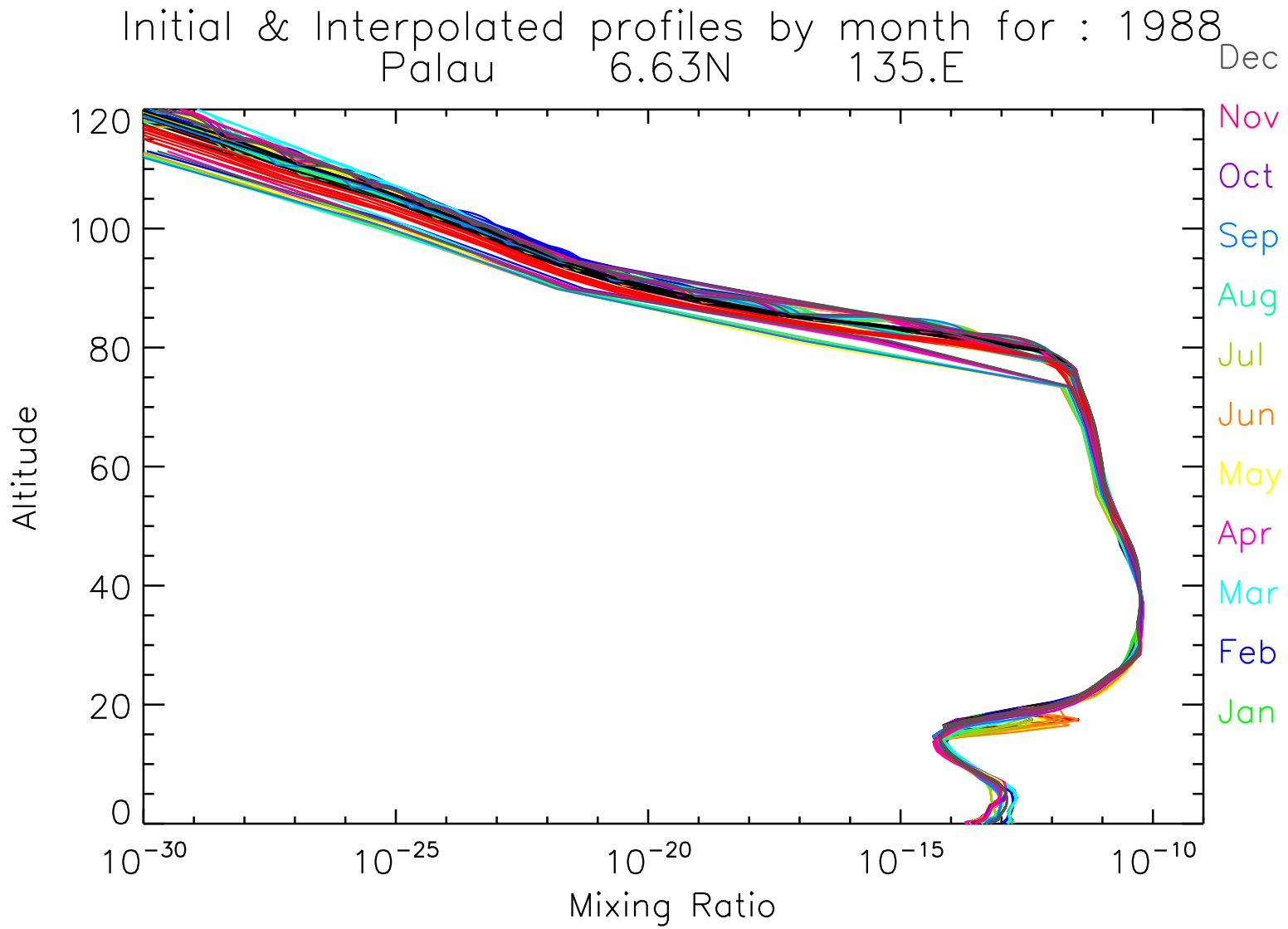
Mixing Ratio


Initial & Interpolated profiles by month for : 1988
Palau 6.63N 135.E
Dec
Nov
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Altitude
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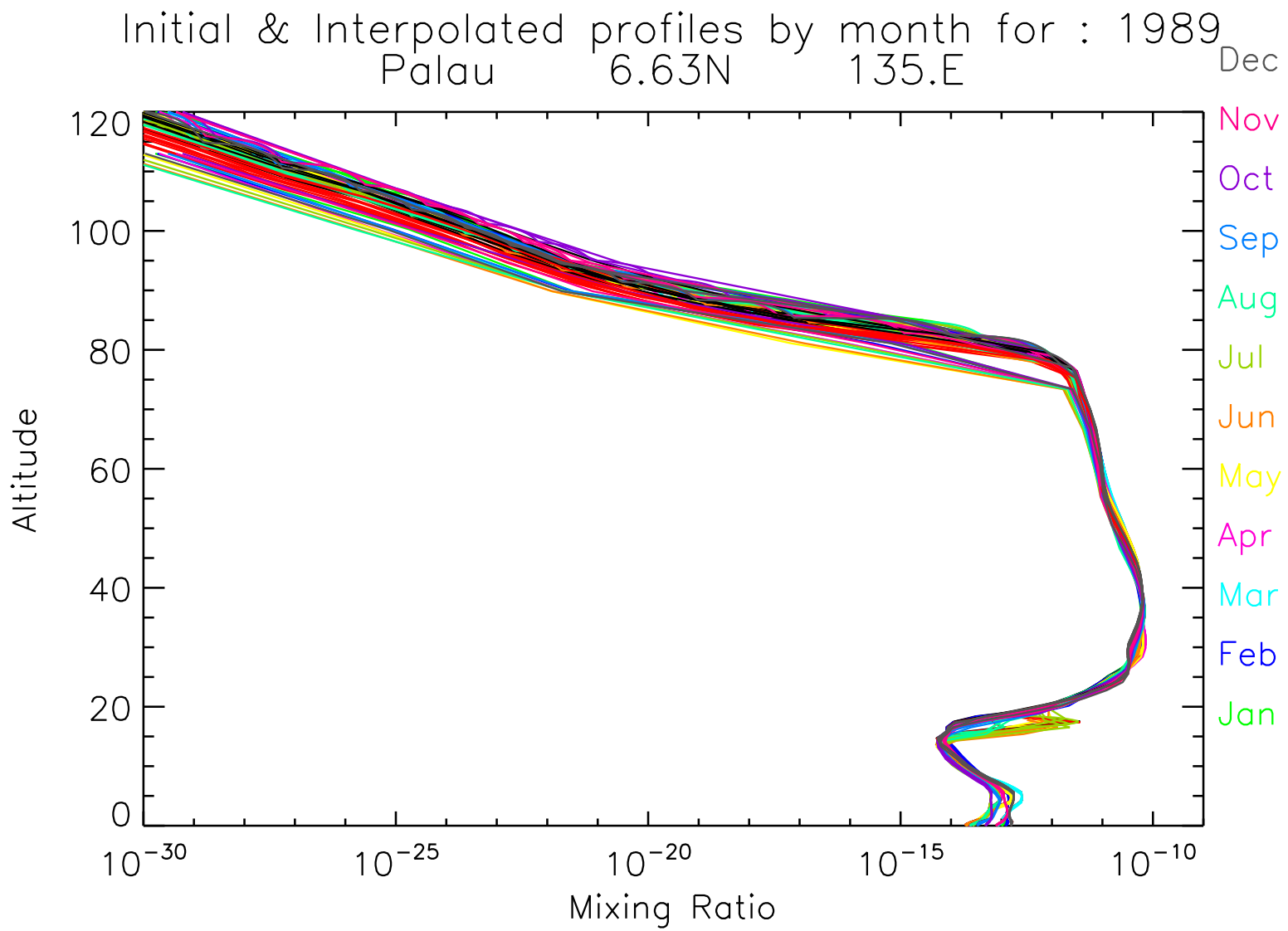
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1989
Palau 6.63N 135.E
Dec
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Altitude
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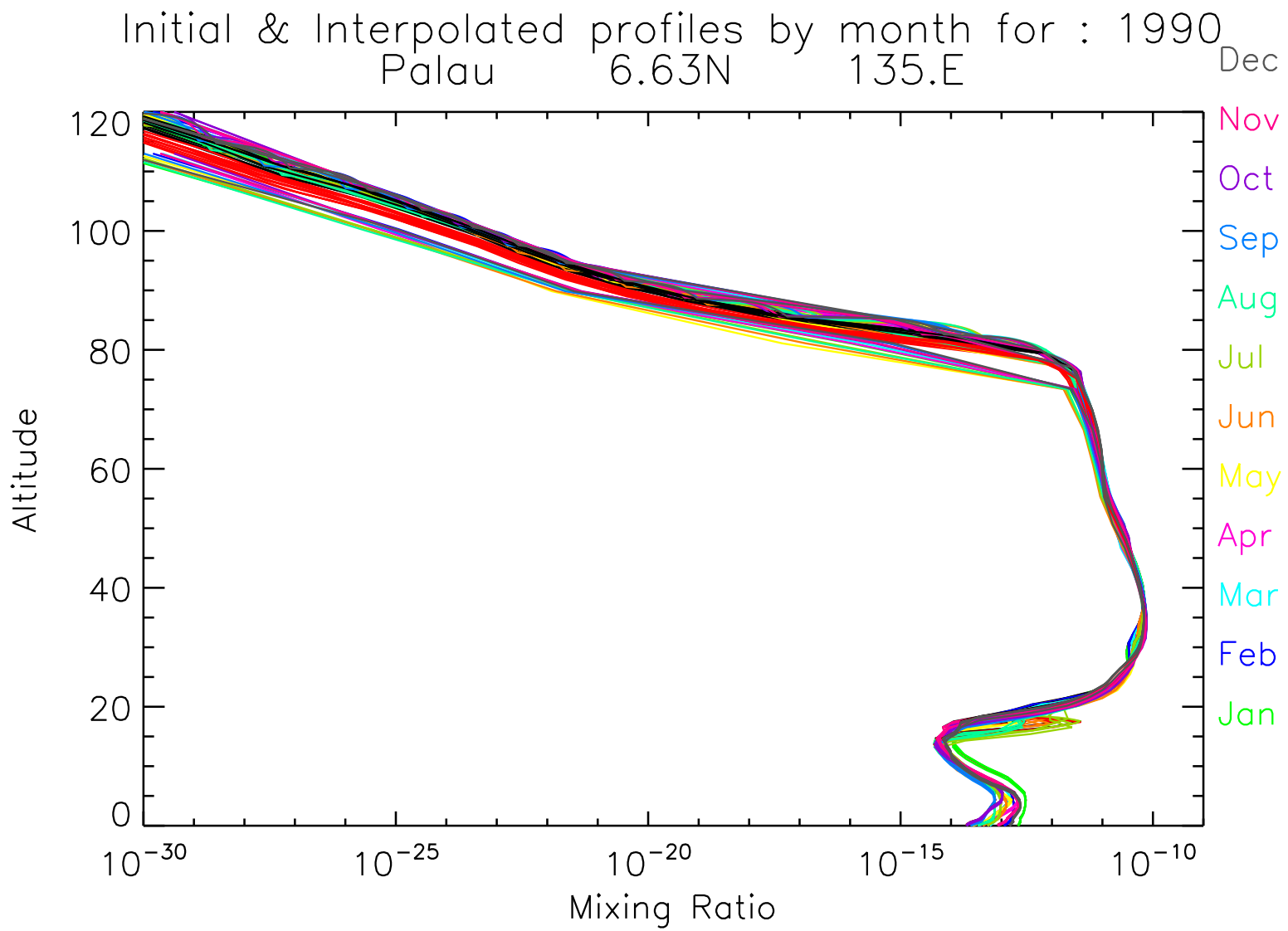
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1990
Palau 6.63N 135.E
Dec
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Altitude
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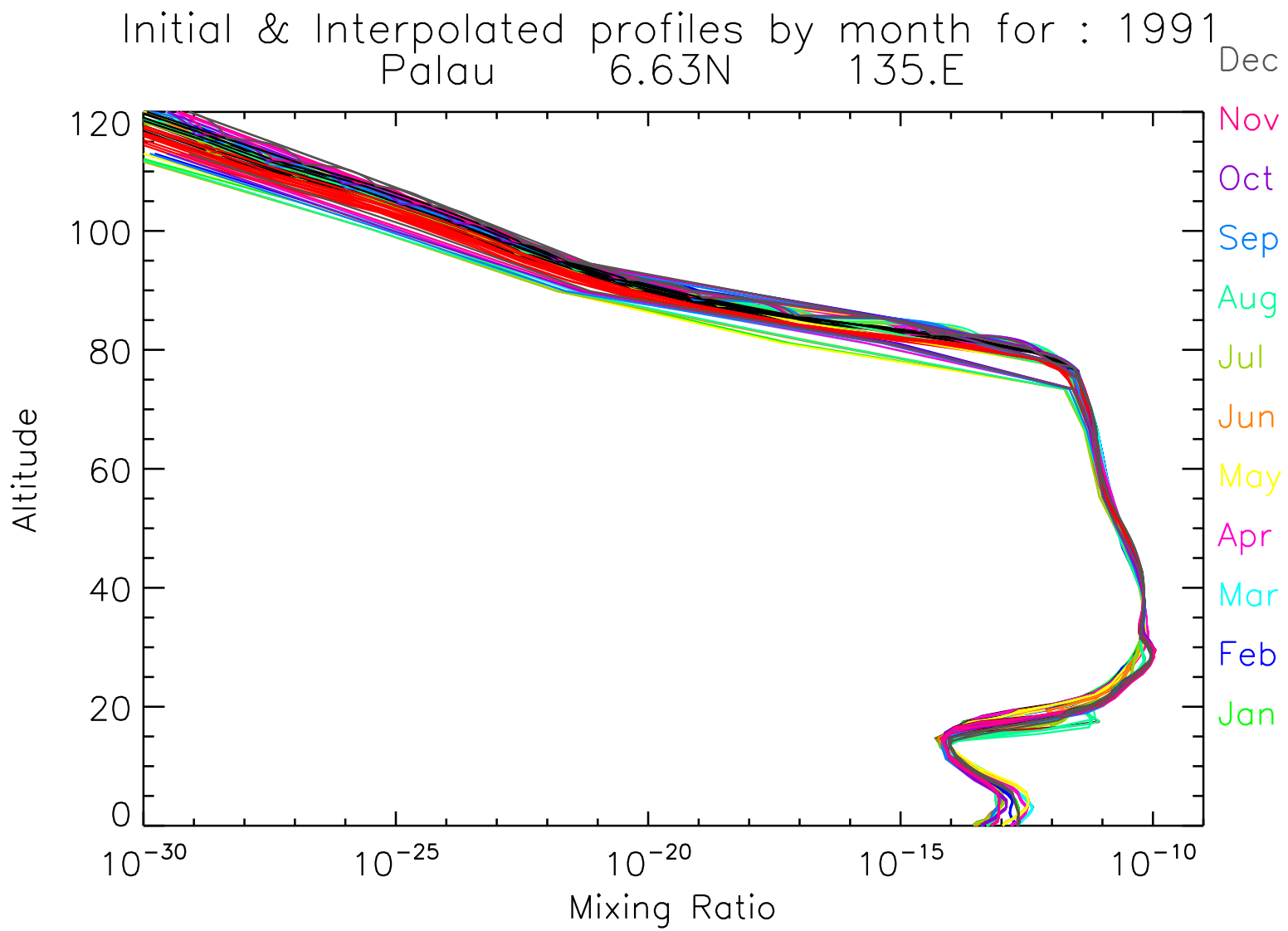
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1991
Palau 6.63N 135.E
Dec
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Altitude
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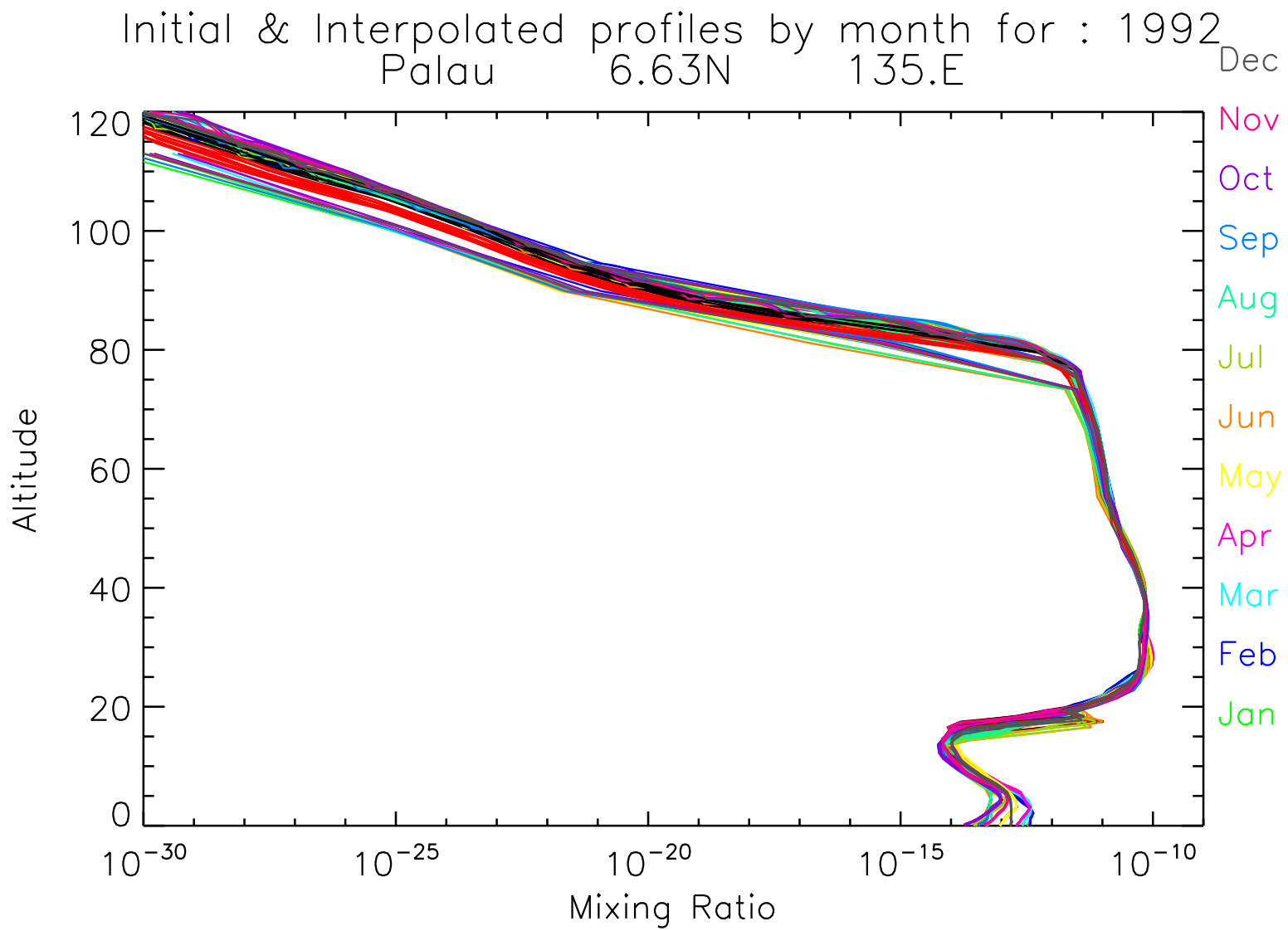
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1992
Palau 6.63N 135.E
Dec
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Altitude
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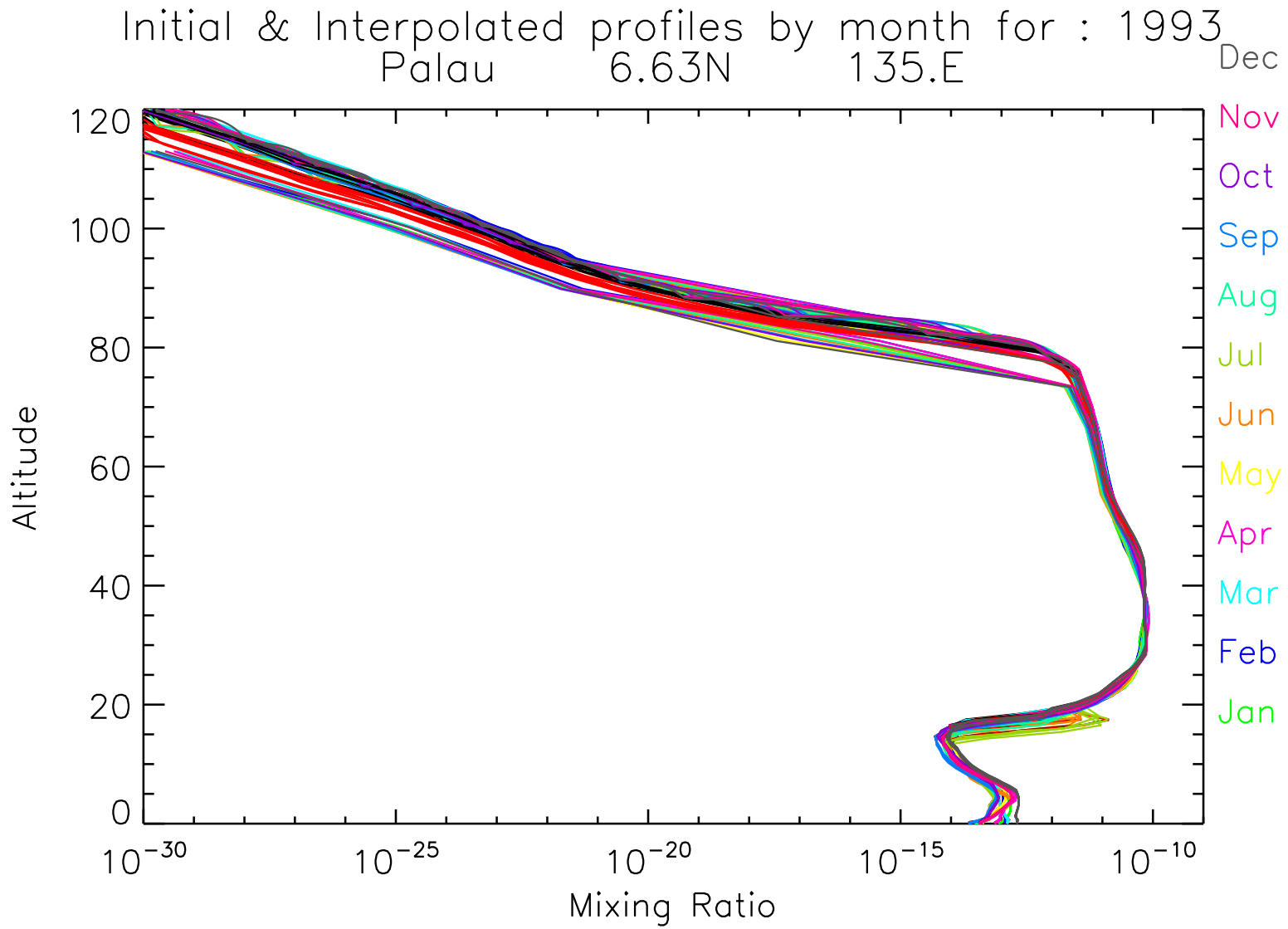
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1993
Palau 6.63N 135.E
Dec
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Altitude
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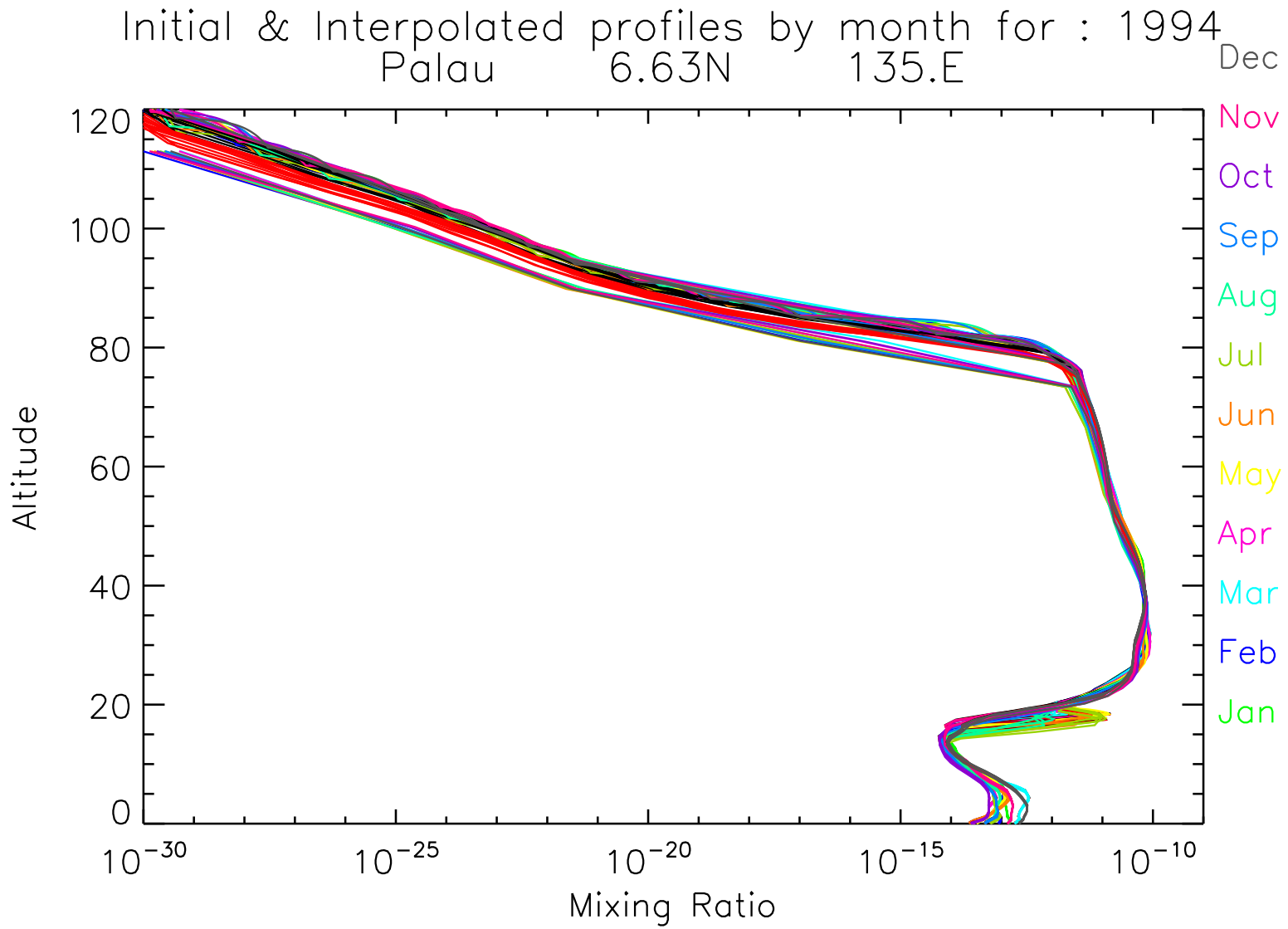
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1994
Palau 6.63N 135.E
Dec
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Altitude
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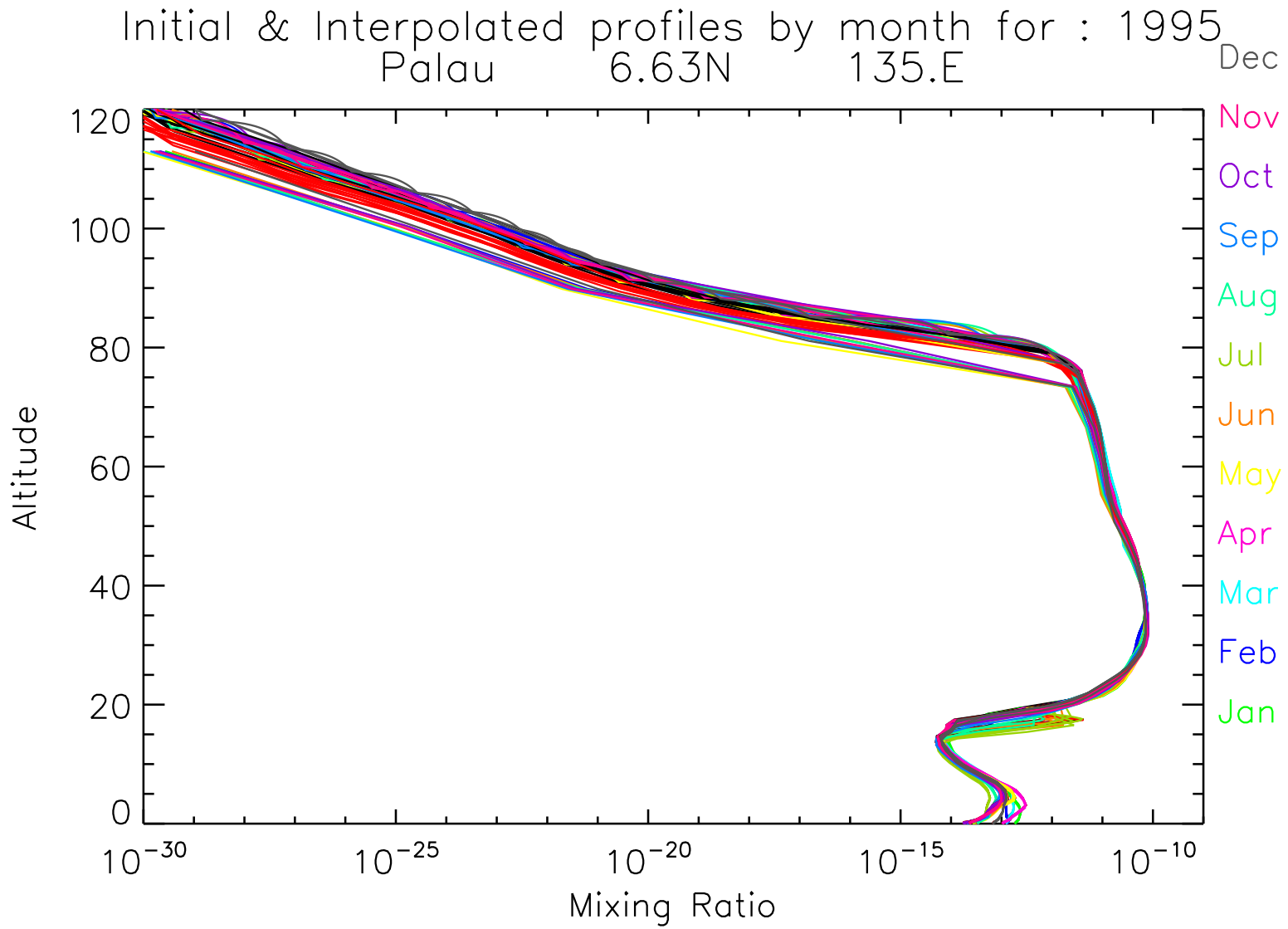
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1995
Palau 6.63N 135.E
Dec
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Altitude
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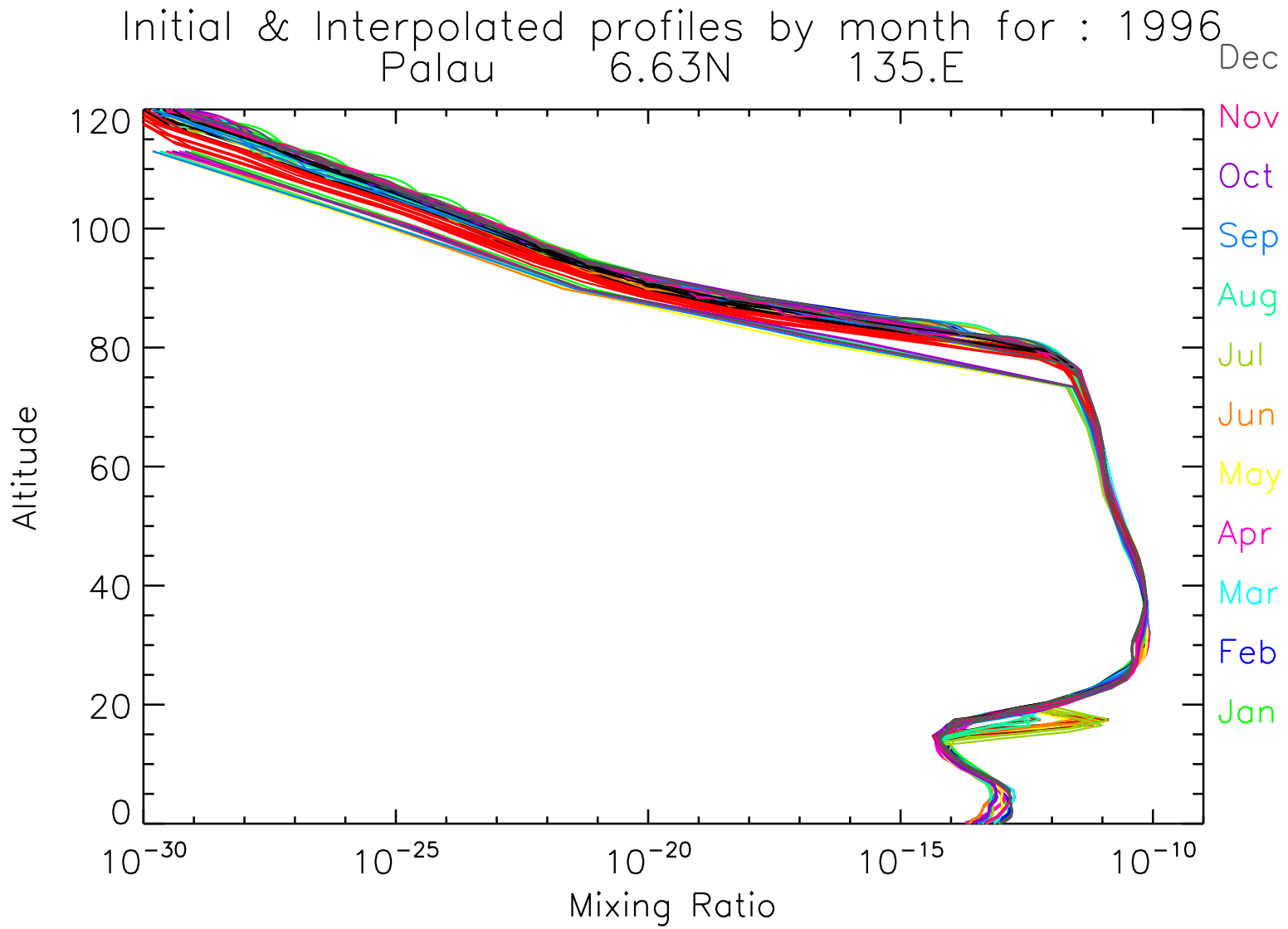
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1996
Palau 6.63N 135.E
Dec
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Altitude
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10^{-30}
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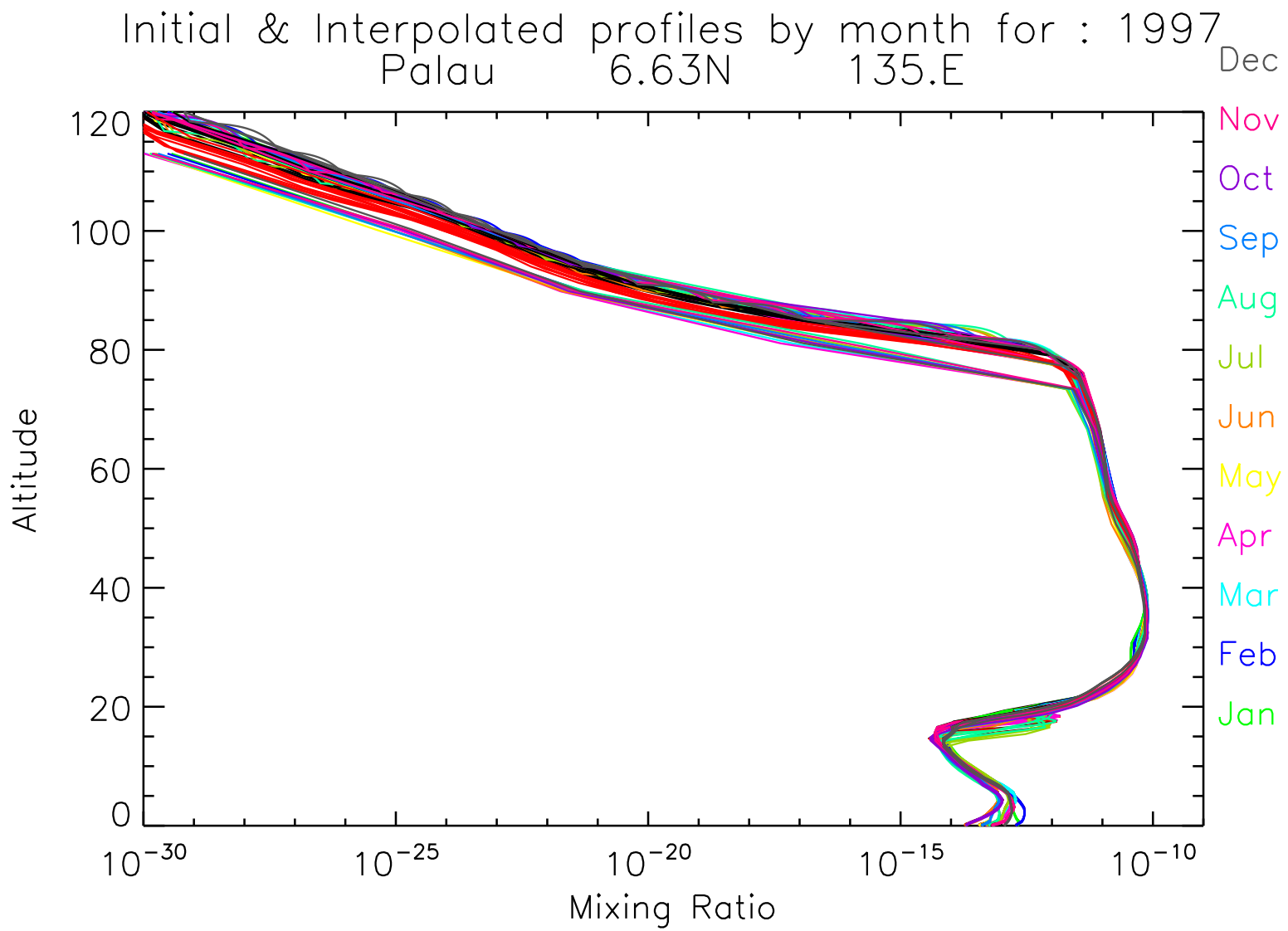
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1997
Palau 6.63N 135.E
Dec
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Altitude
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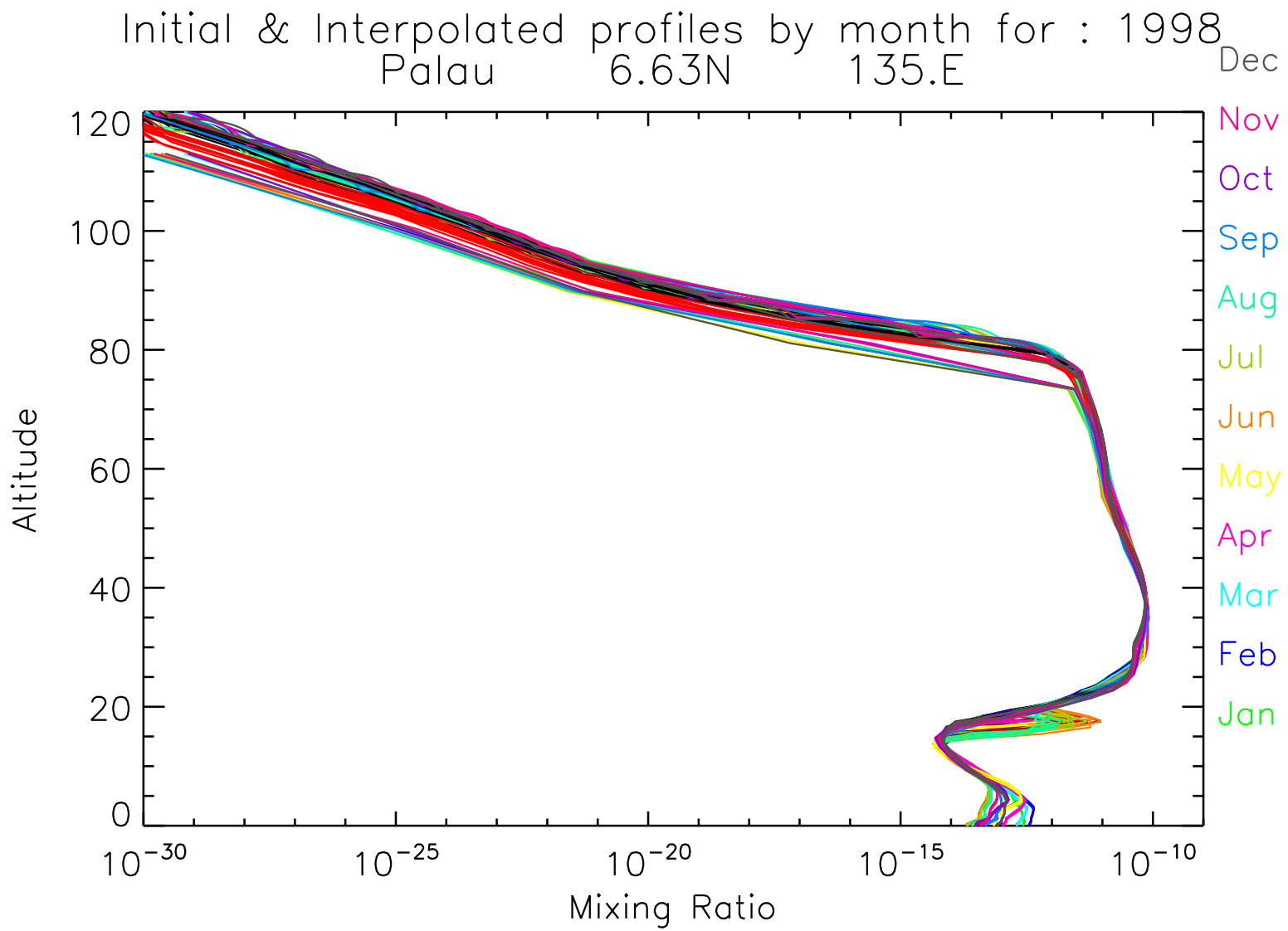
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1998
Palau 6.63N 135.E
Dec
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Altitude
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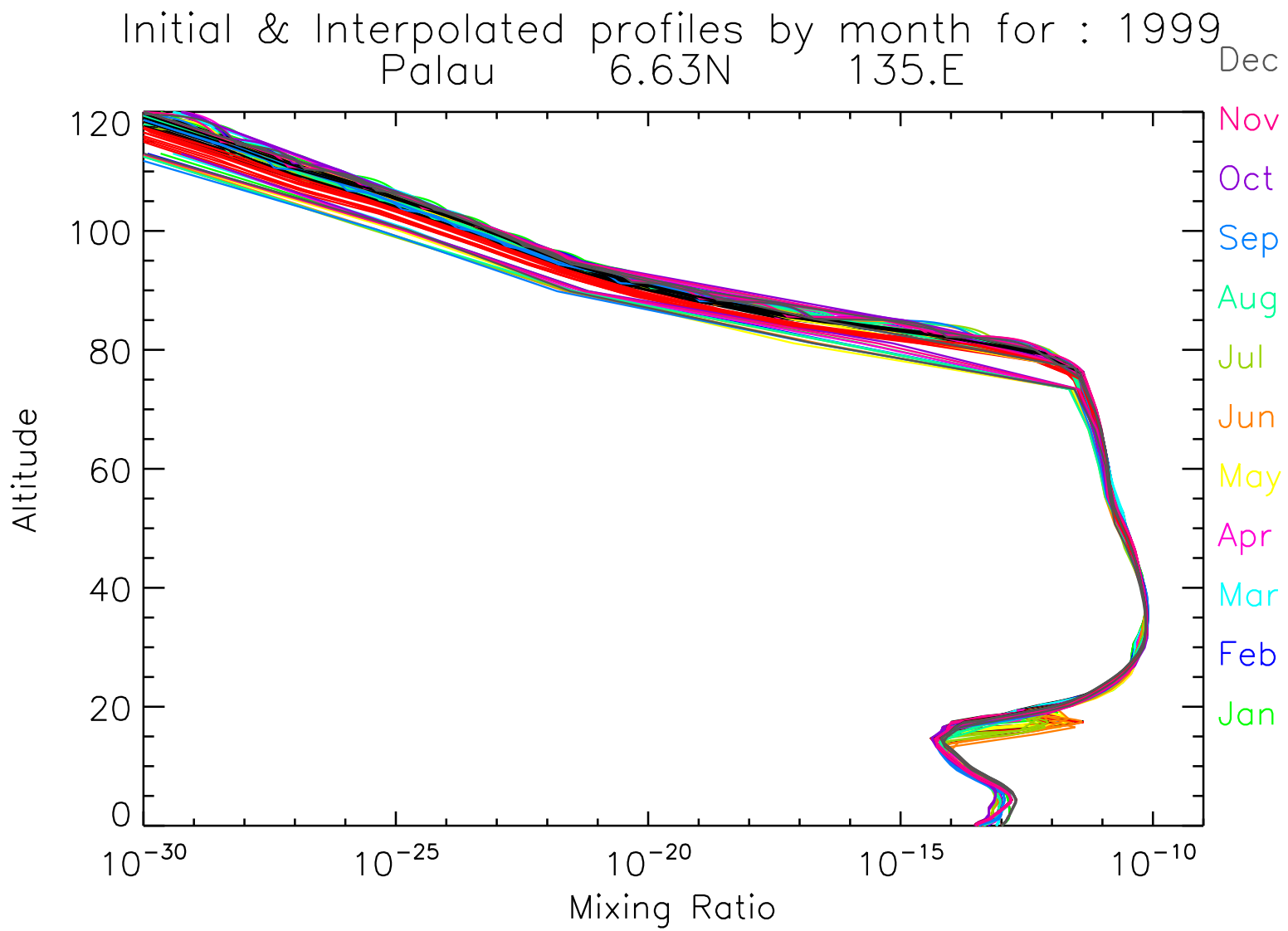
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 1999
Palau 6.63N 135.E
Dec
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Altitude
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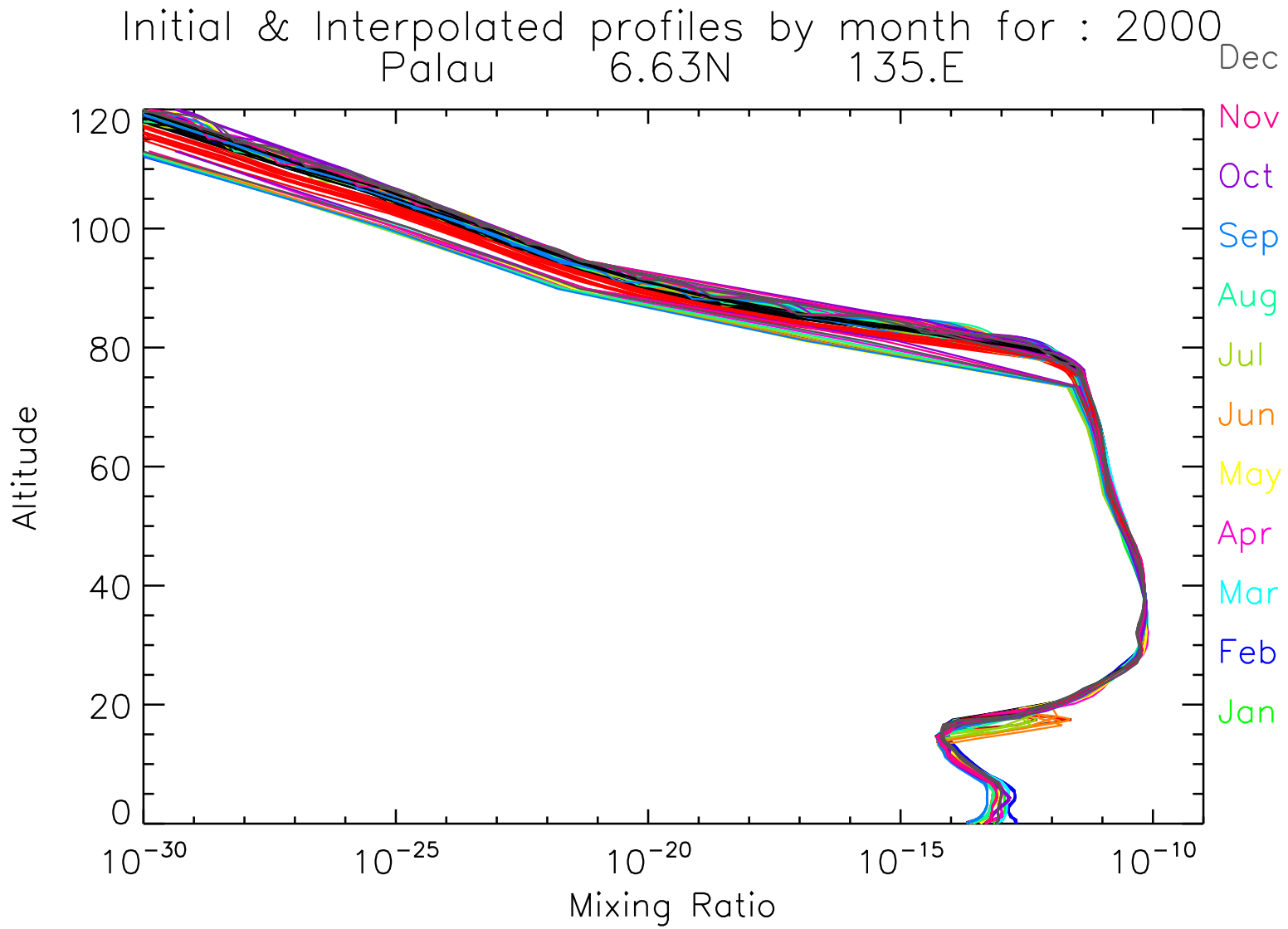
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2000
Palau 6.63N 135.E
Dec
Nov
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Altitude
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10^{-20}
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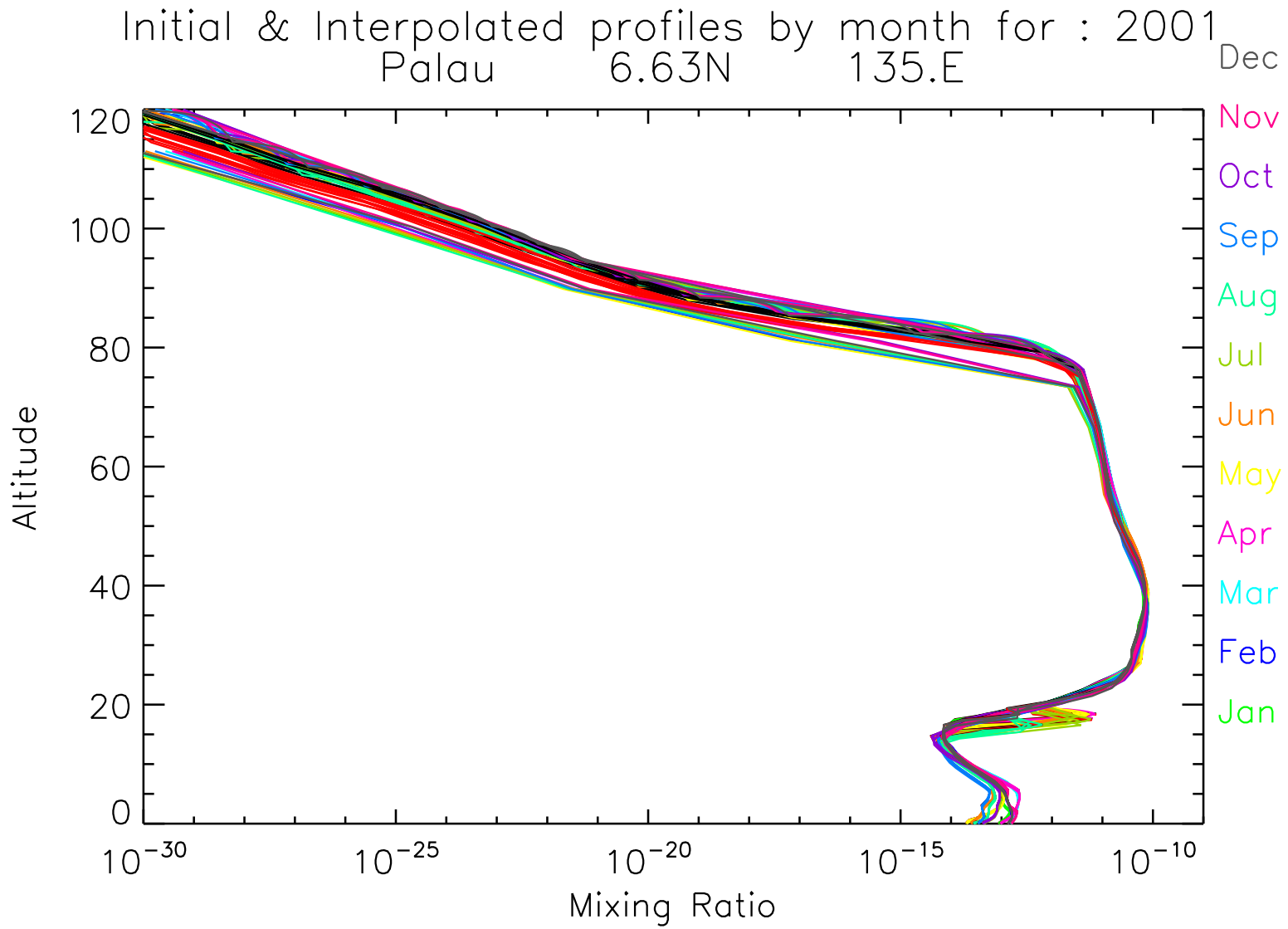
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2001
Palau 6.63N 135.E
Dec
Nov
Oct
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Altitude
10^{-30}
10^{-25}
10^{-20}
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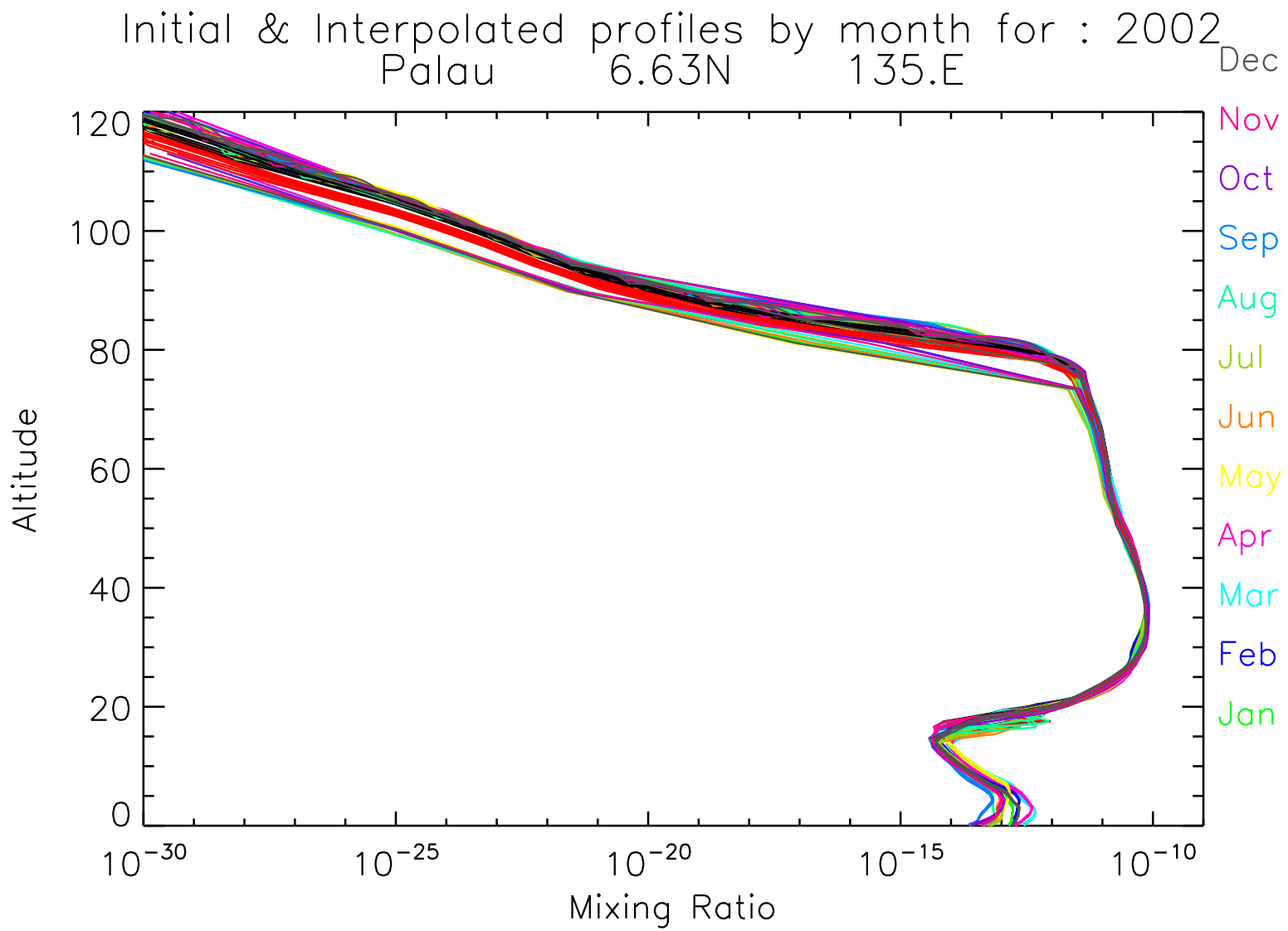
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2002
Palau 6.63N 135.E
Dec
Nov
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Feb
Jan
Altitude
120
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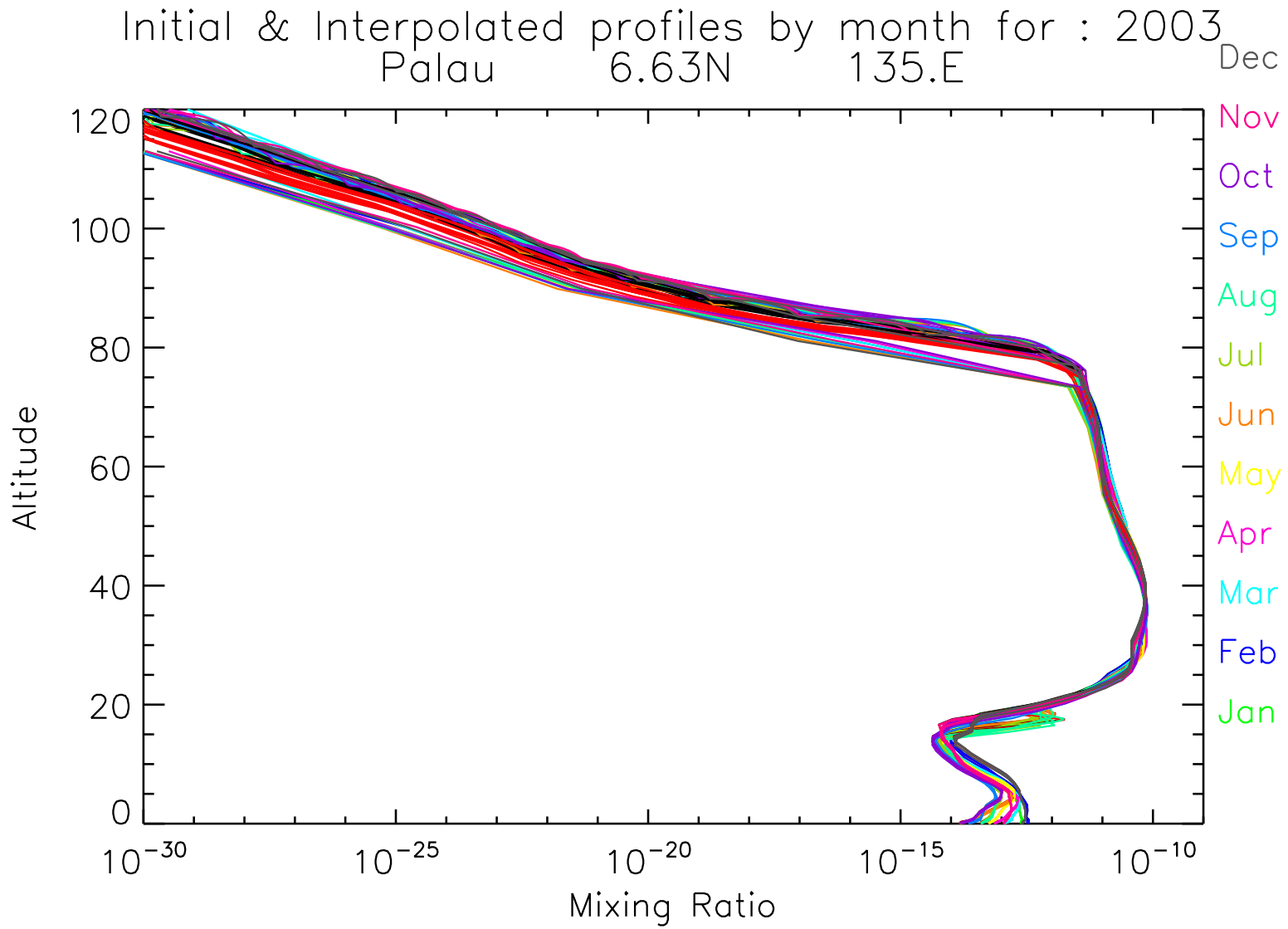
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2003
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
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May
Apr
Mar
Feb
Jan
120
100
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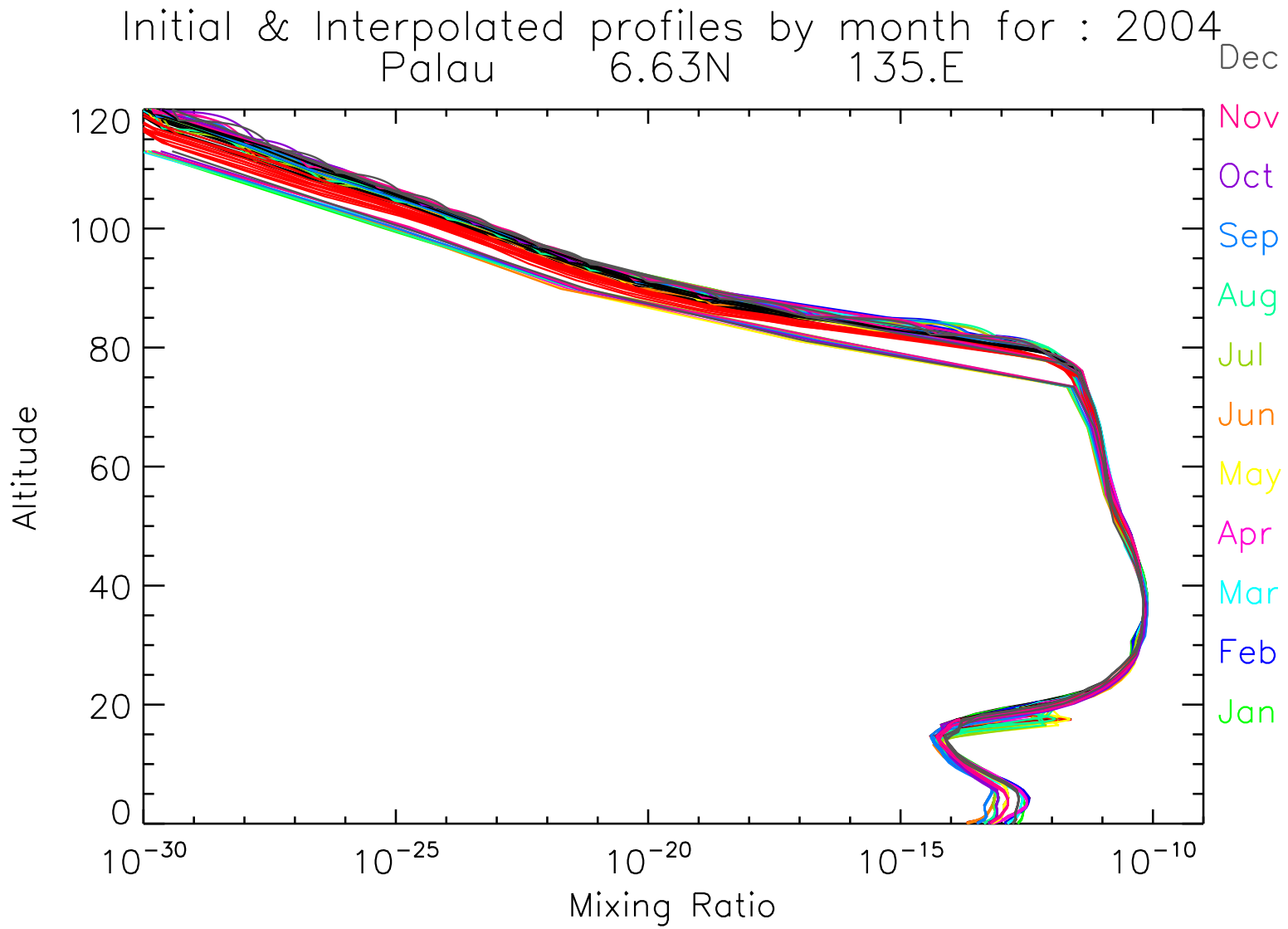
0
Altitude
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2004
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
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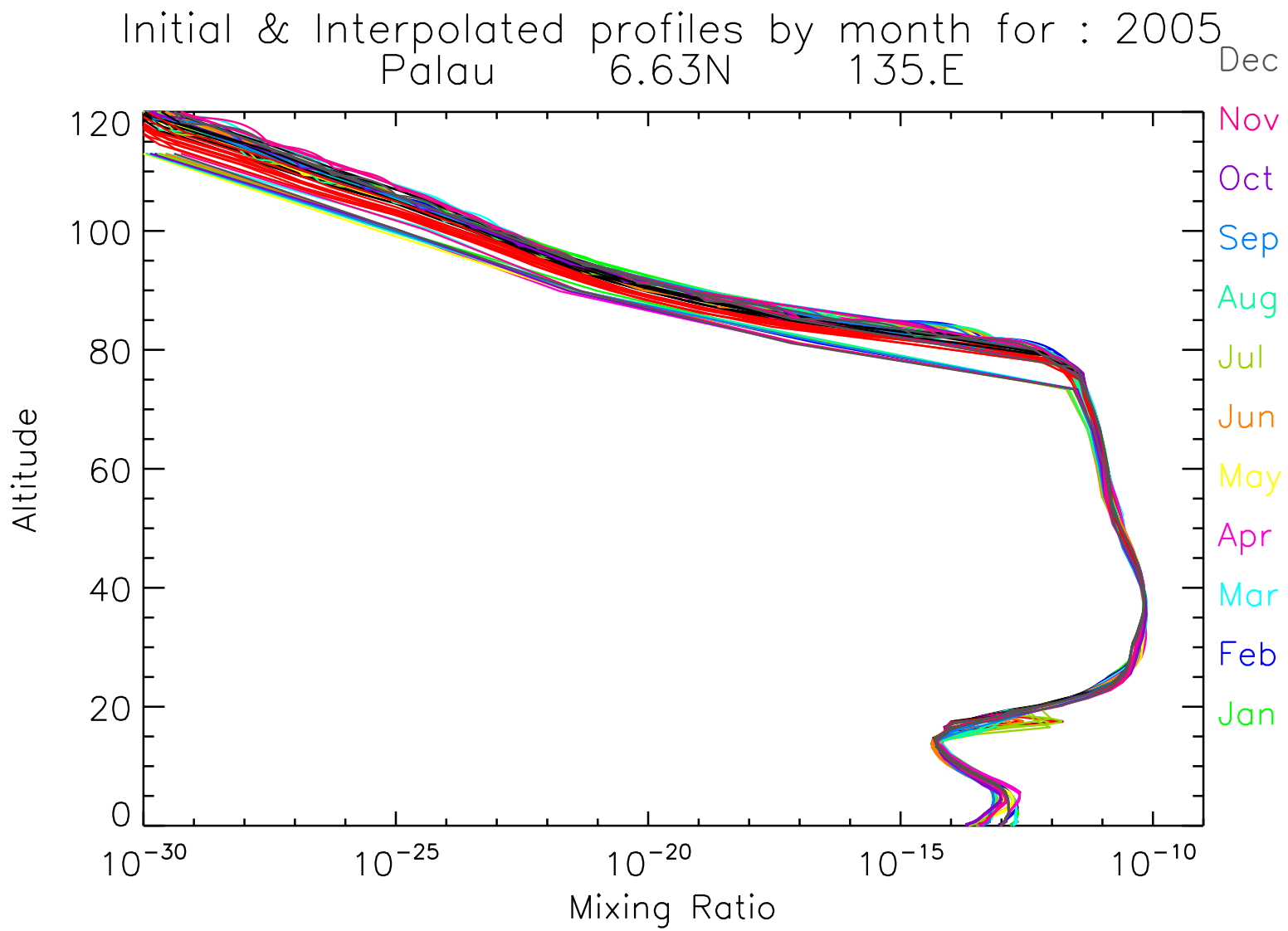
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2005
Palau 6.63N 135.E
Dec
Nov
Oct
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May
Apr
Mar
Feb
Jan
Altitude
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100
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40
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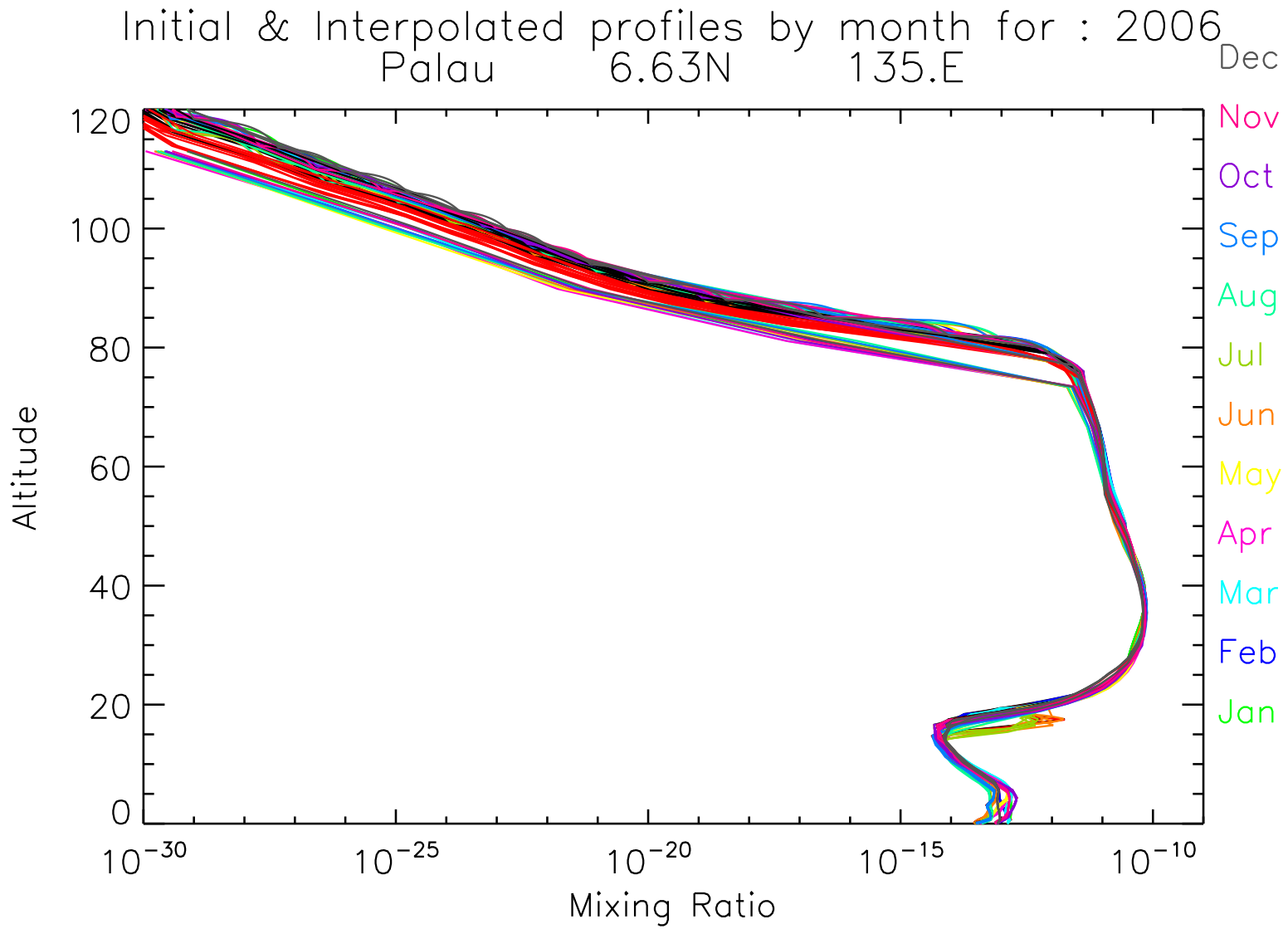
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2006
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
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May
Apr
Mar
Feb
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Altitude
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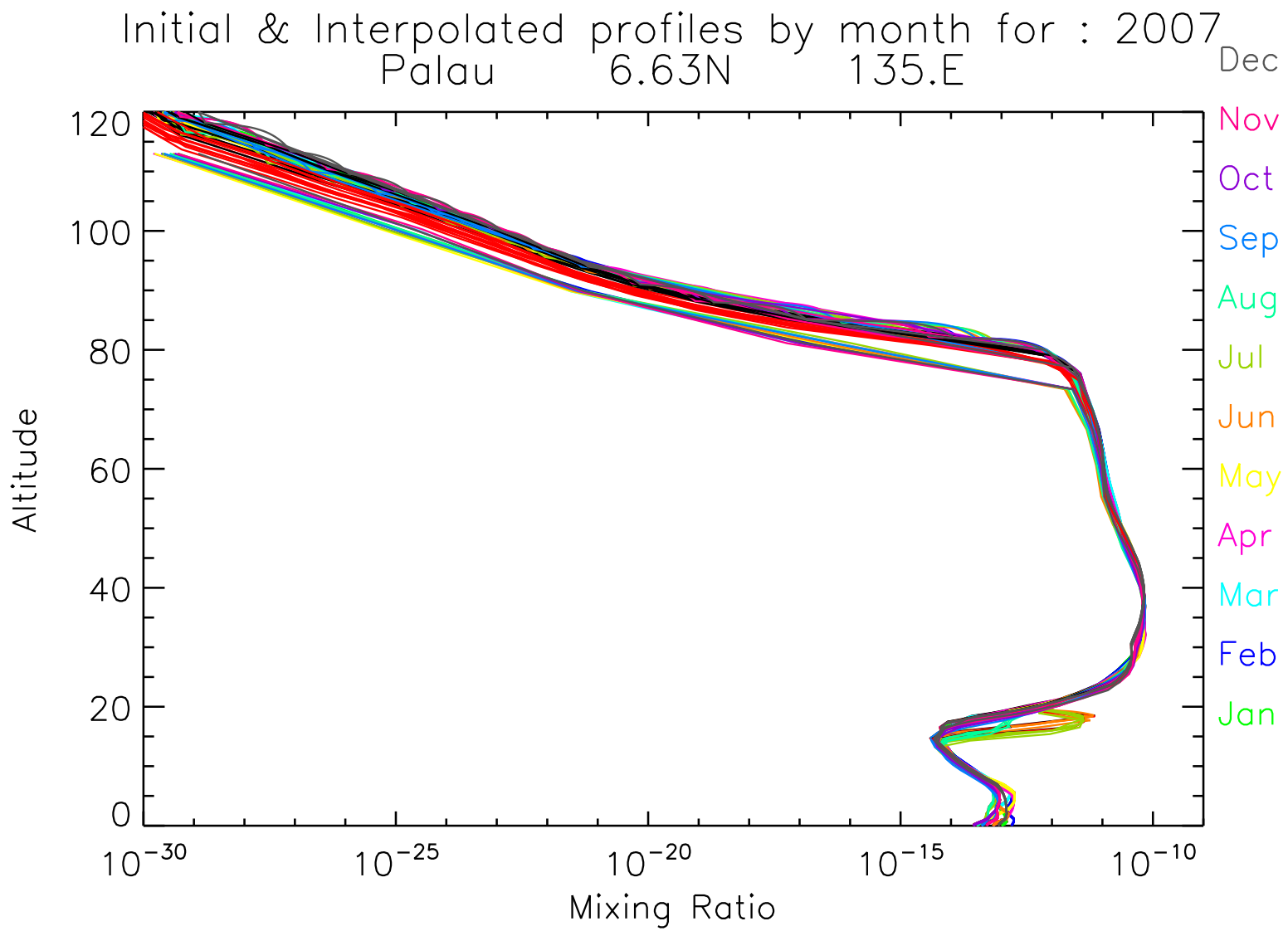
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2007
Palau 6.63N 135.E
Dec
Nov
Oct
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Jan
Altitude
120
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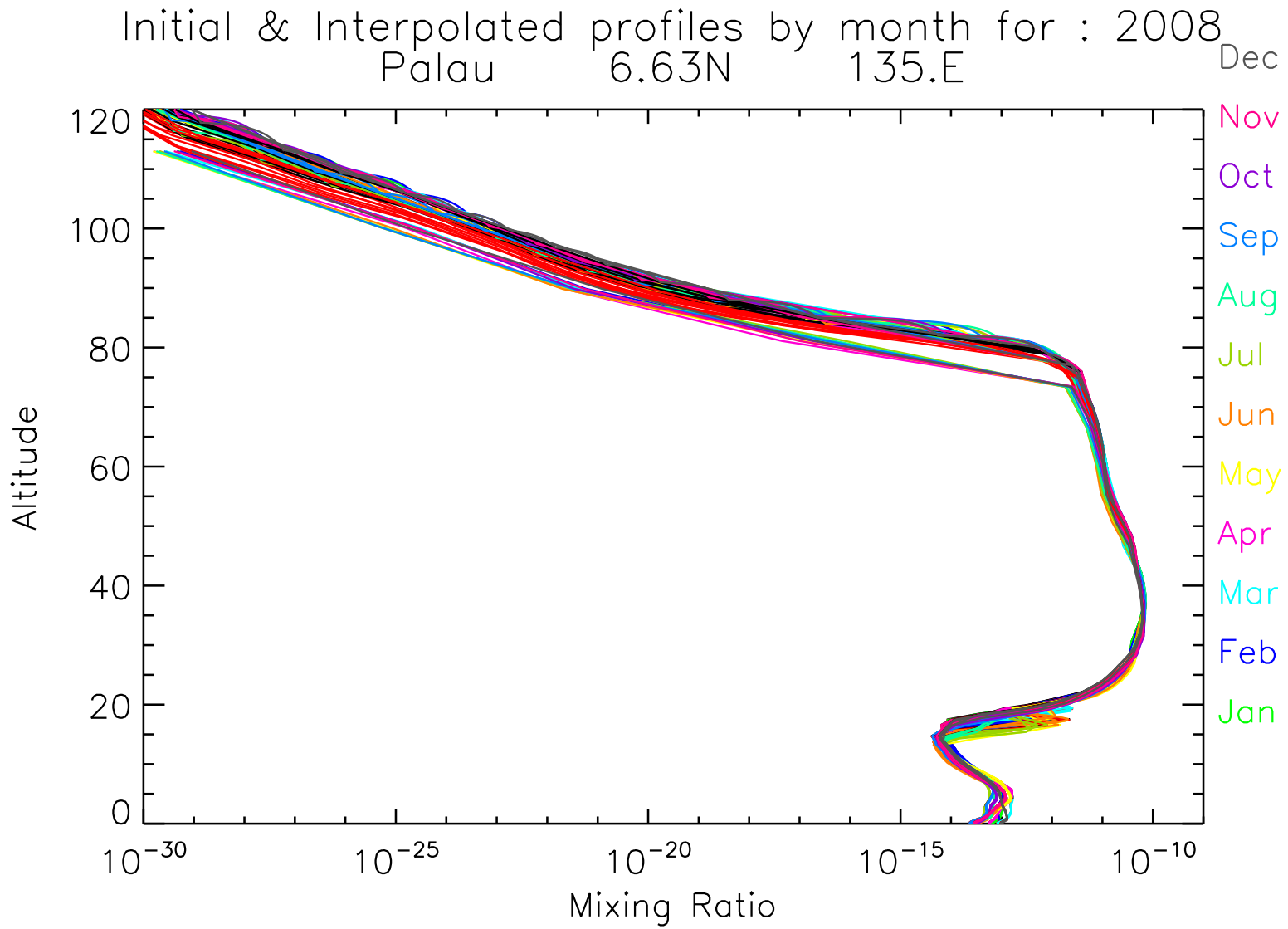
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2008
Palau 6.63N 135.E
Dec
Nov
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Apr
Mar
Feb
Jan
120
100
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40
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0
Altitude
10^{-30}
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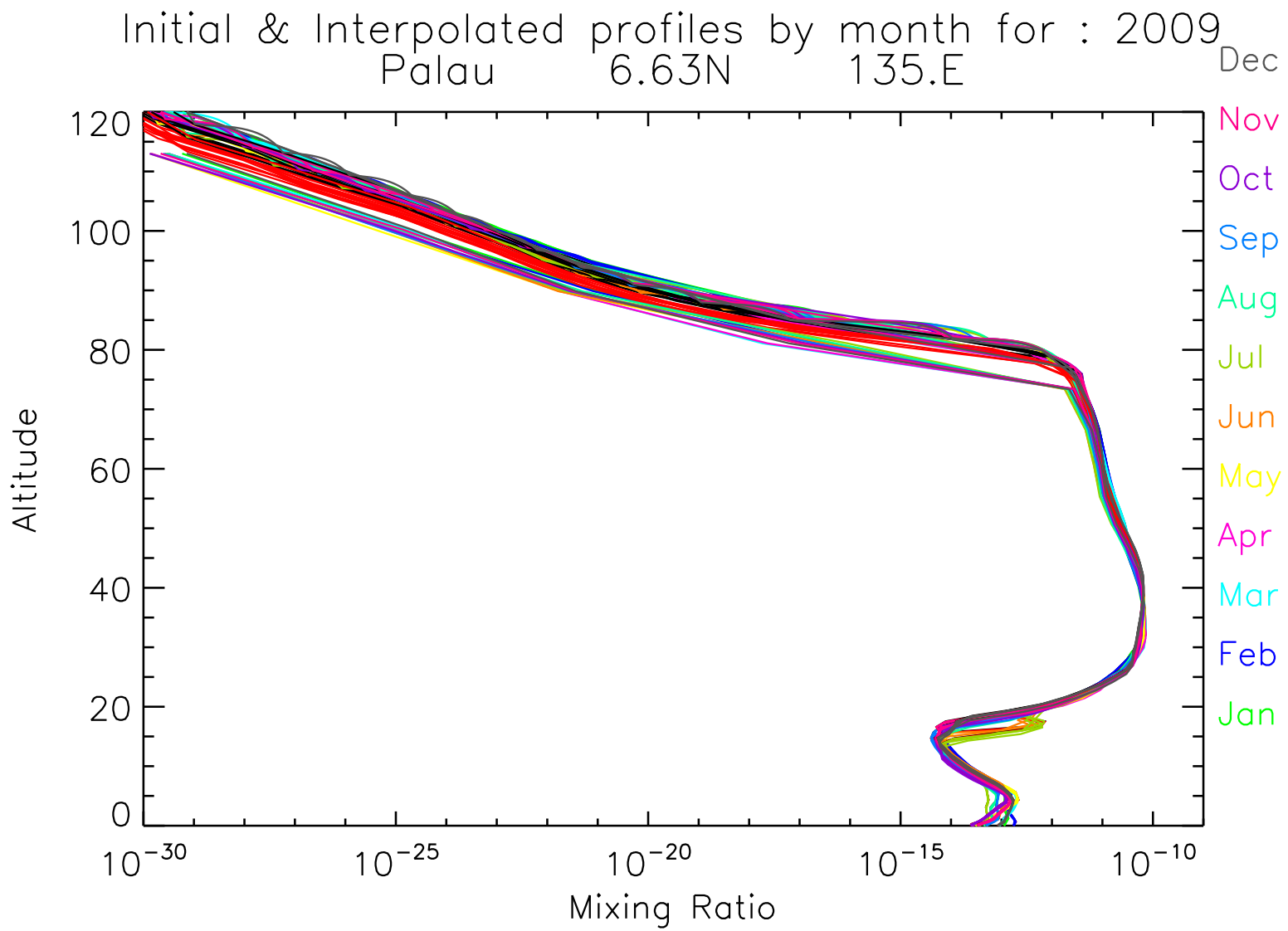
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2009
Palau 6.63N 135.E
Dec
Nov
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Jan
120
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0
Altitude
10^{-30}
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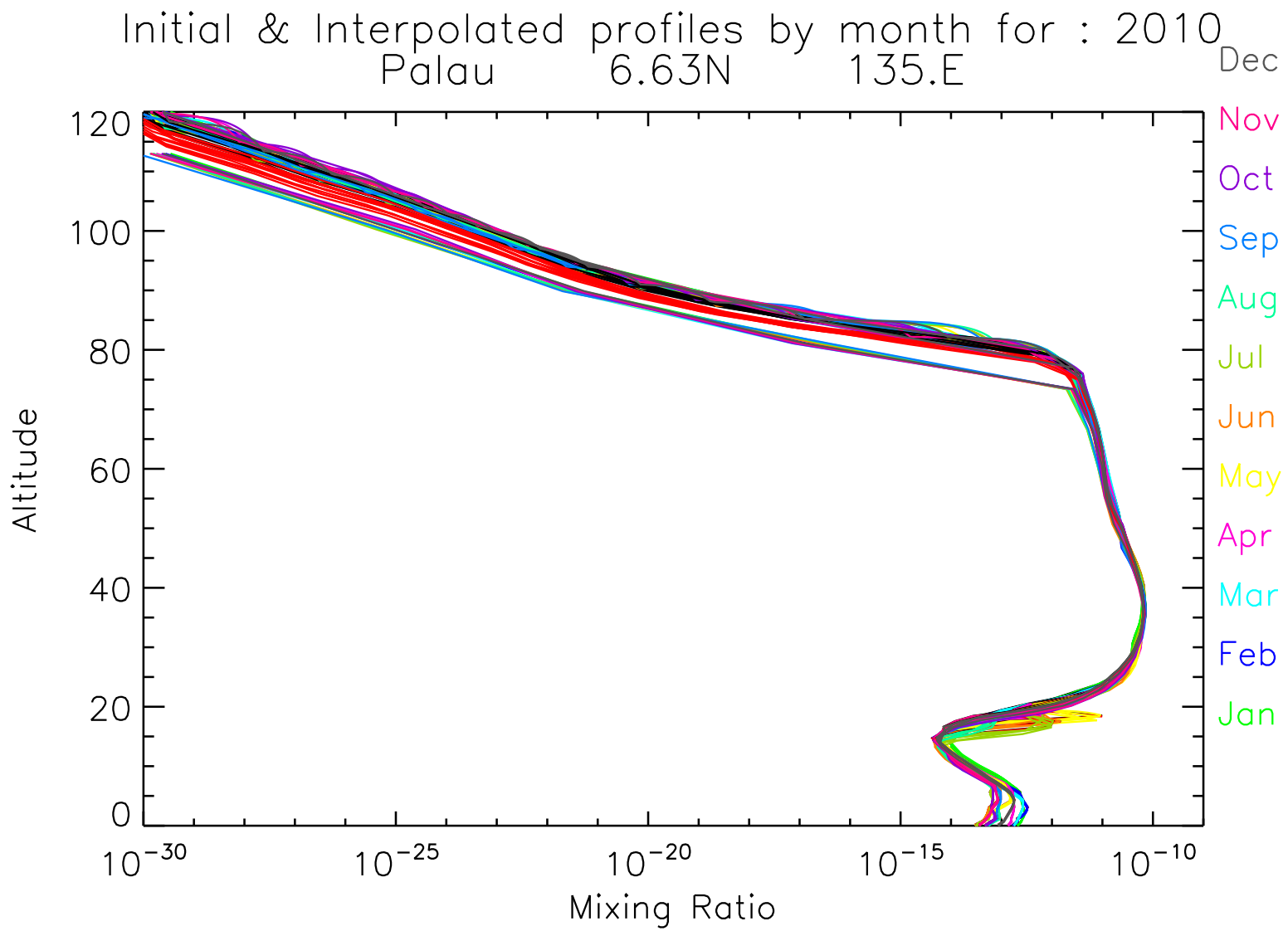
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio


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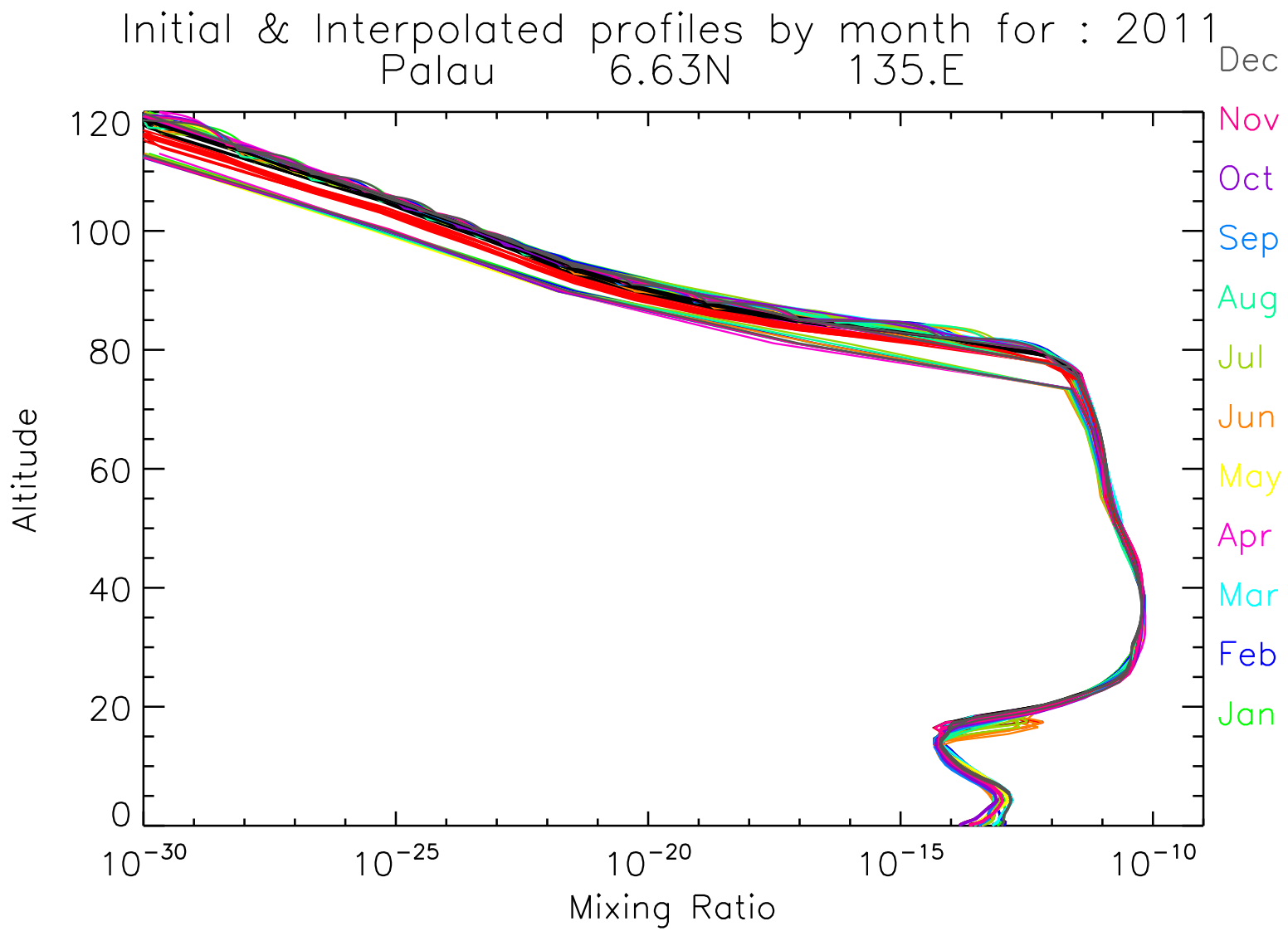
10^{-10}
Mixing Ratio


Initial & Interpolated profiles by month for : 2011
Palau 6.63N 135.E
Dec
Nov
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Mar
Feb
Jan
120
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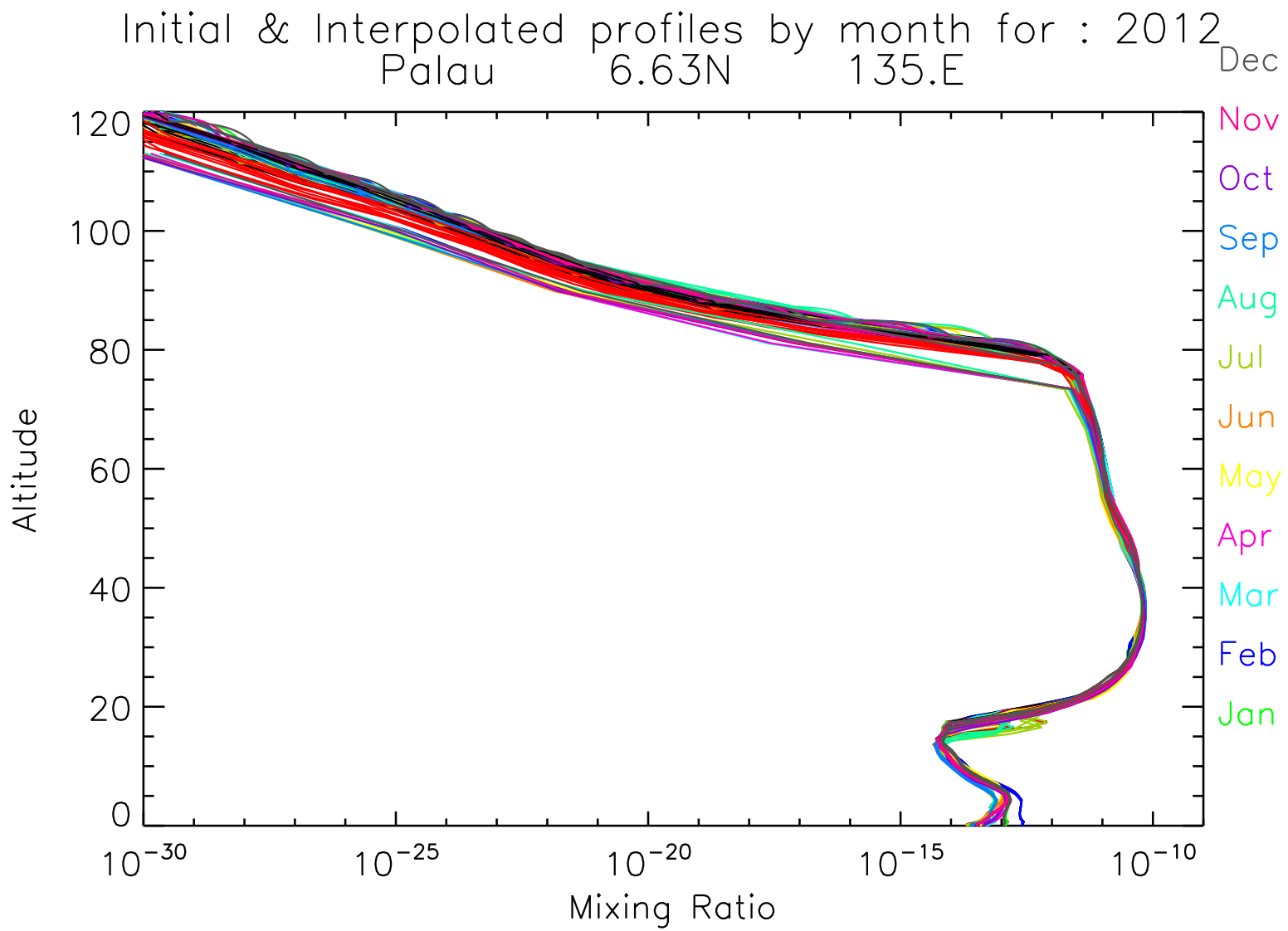
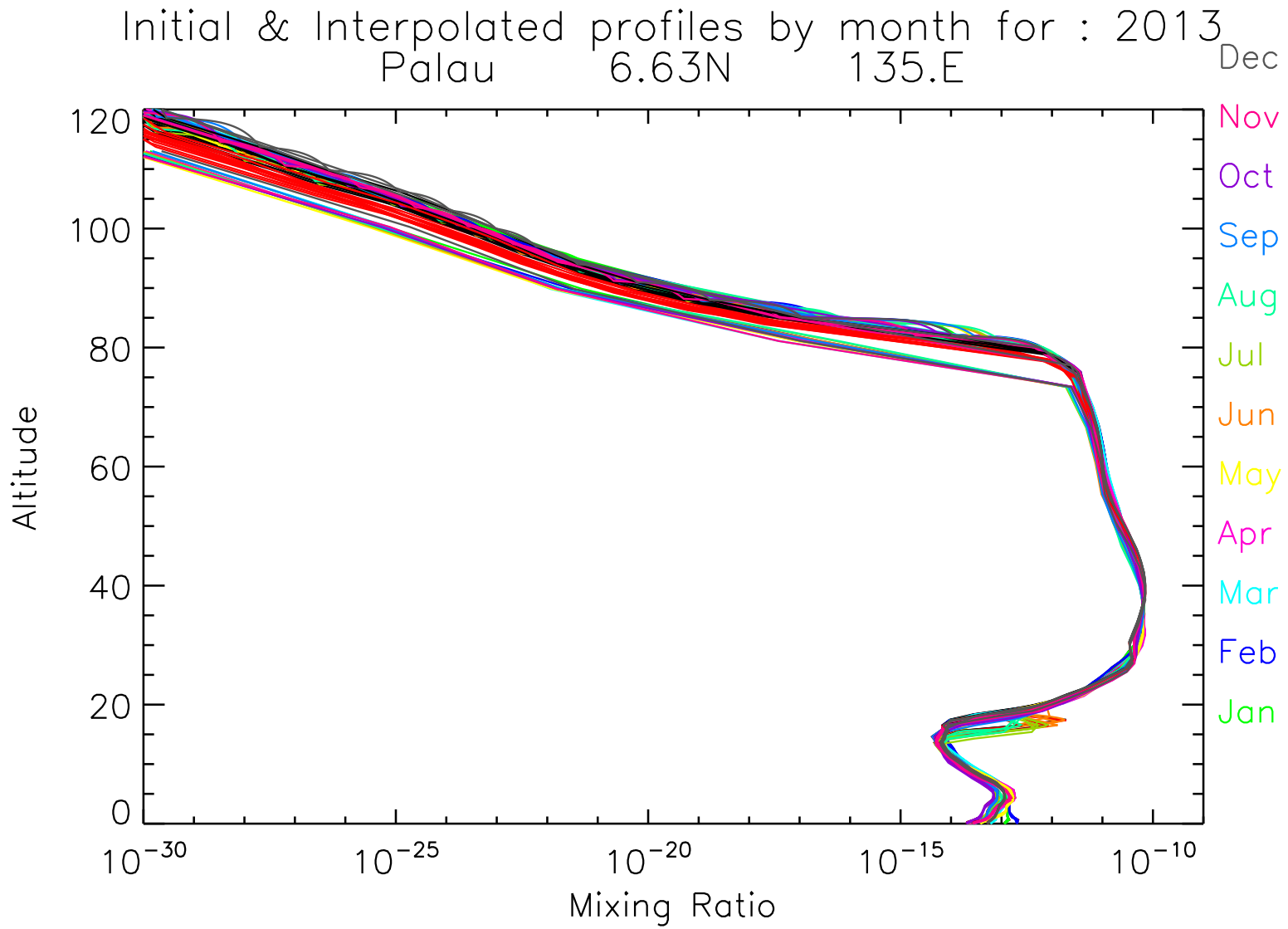
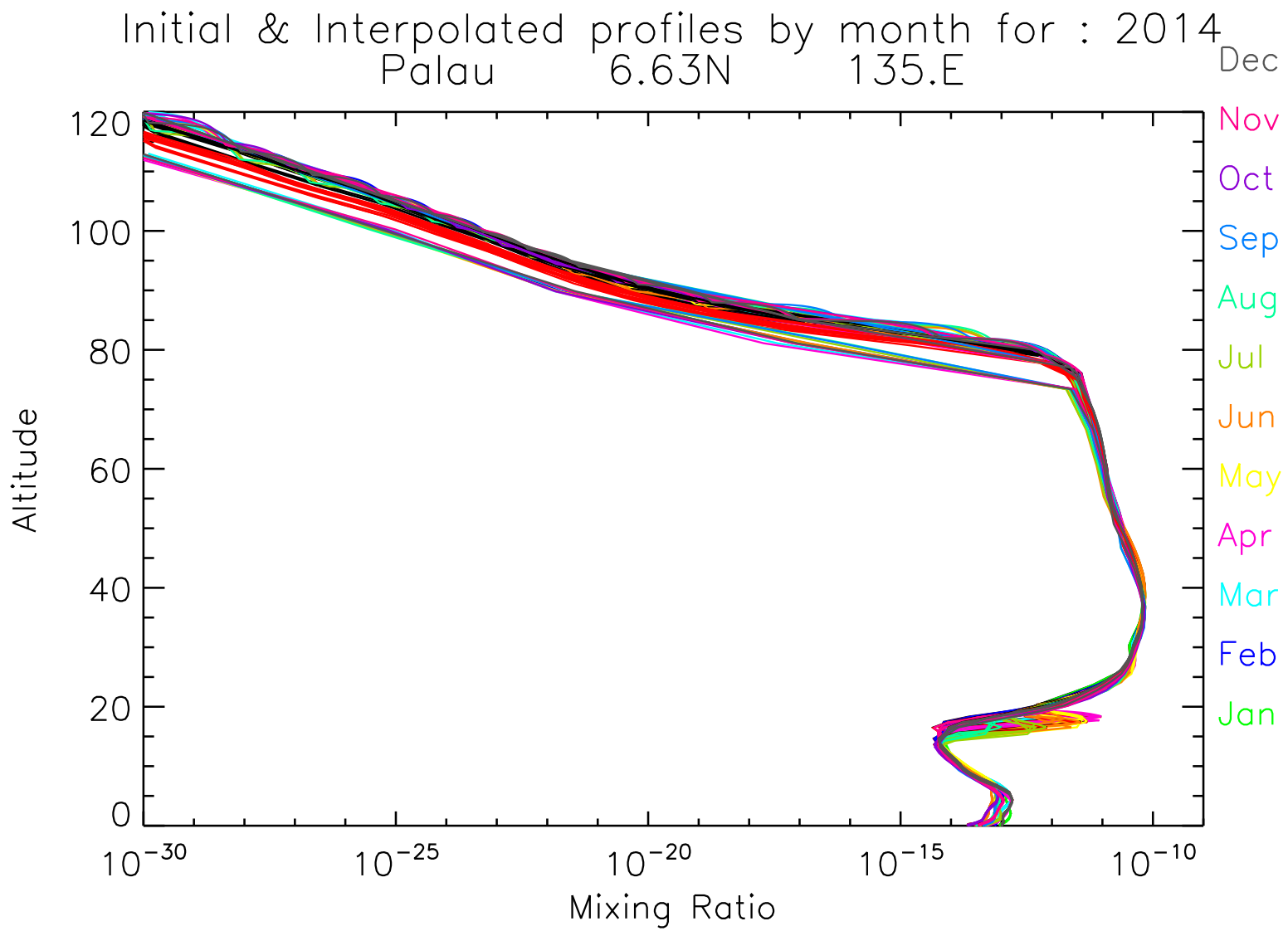
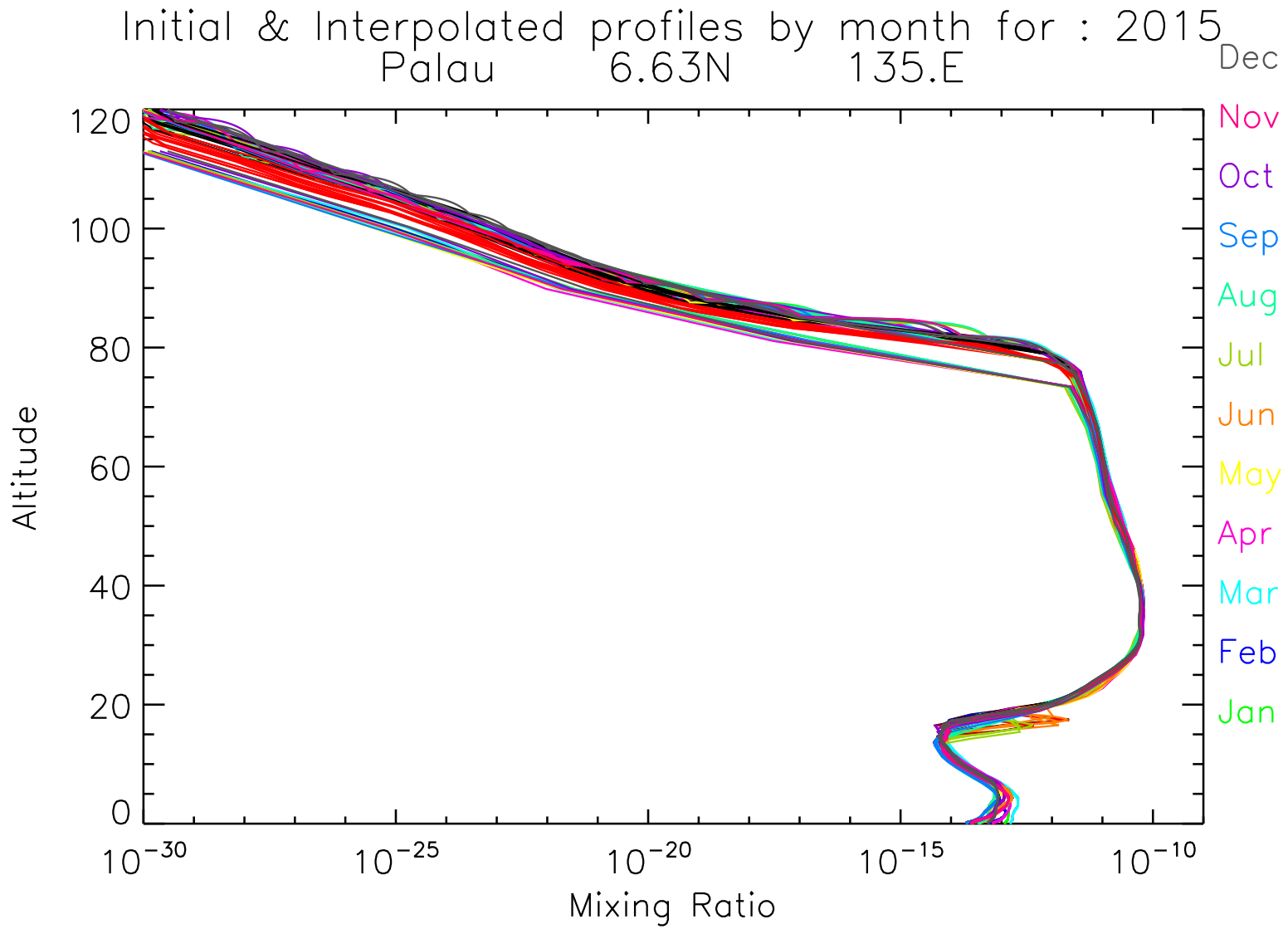
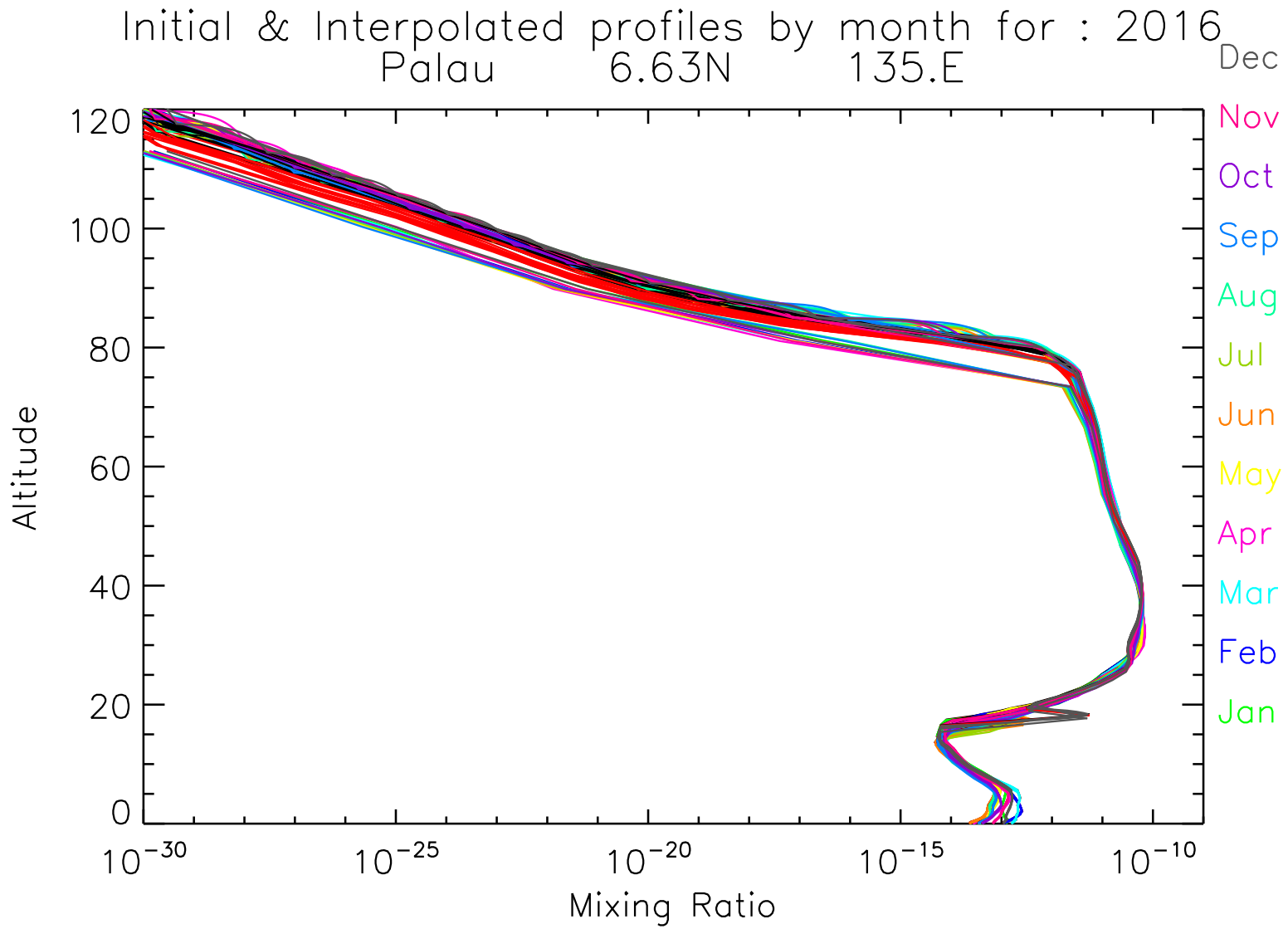
0
Altitude
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

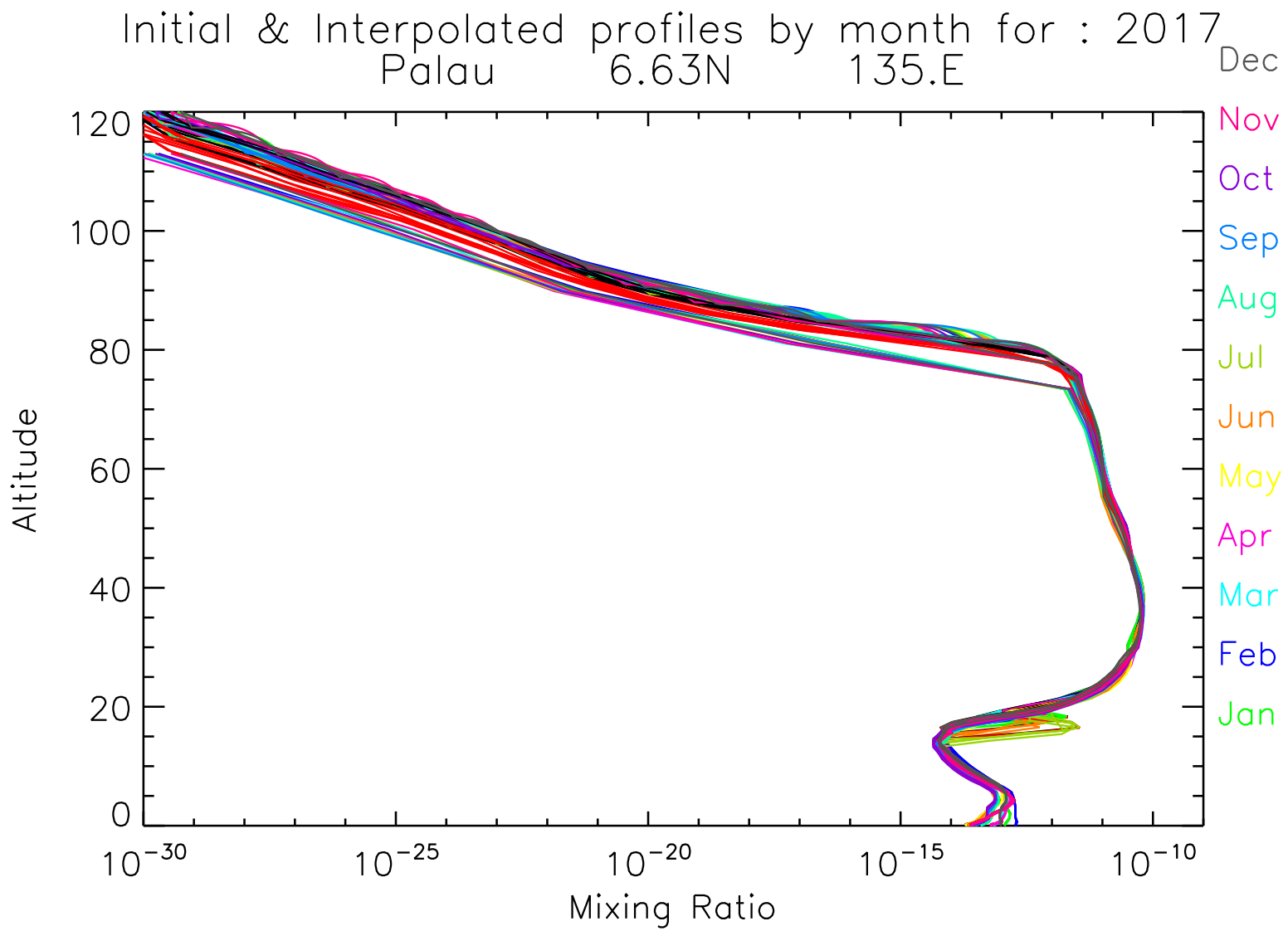

Initial & Interpolated profiles by month for : 2012
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

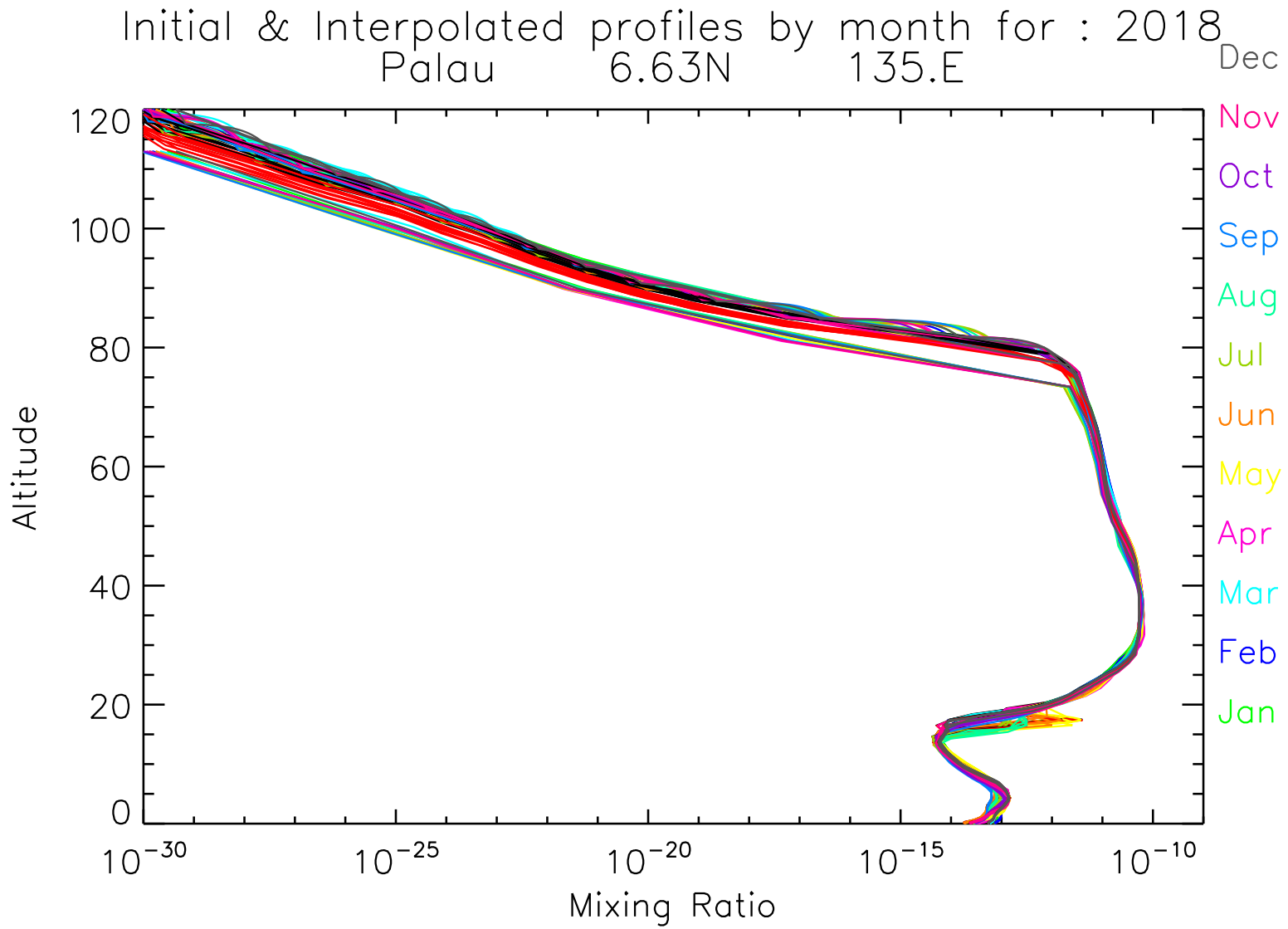

Initial & Interpolated profiles by month for : 2013
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

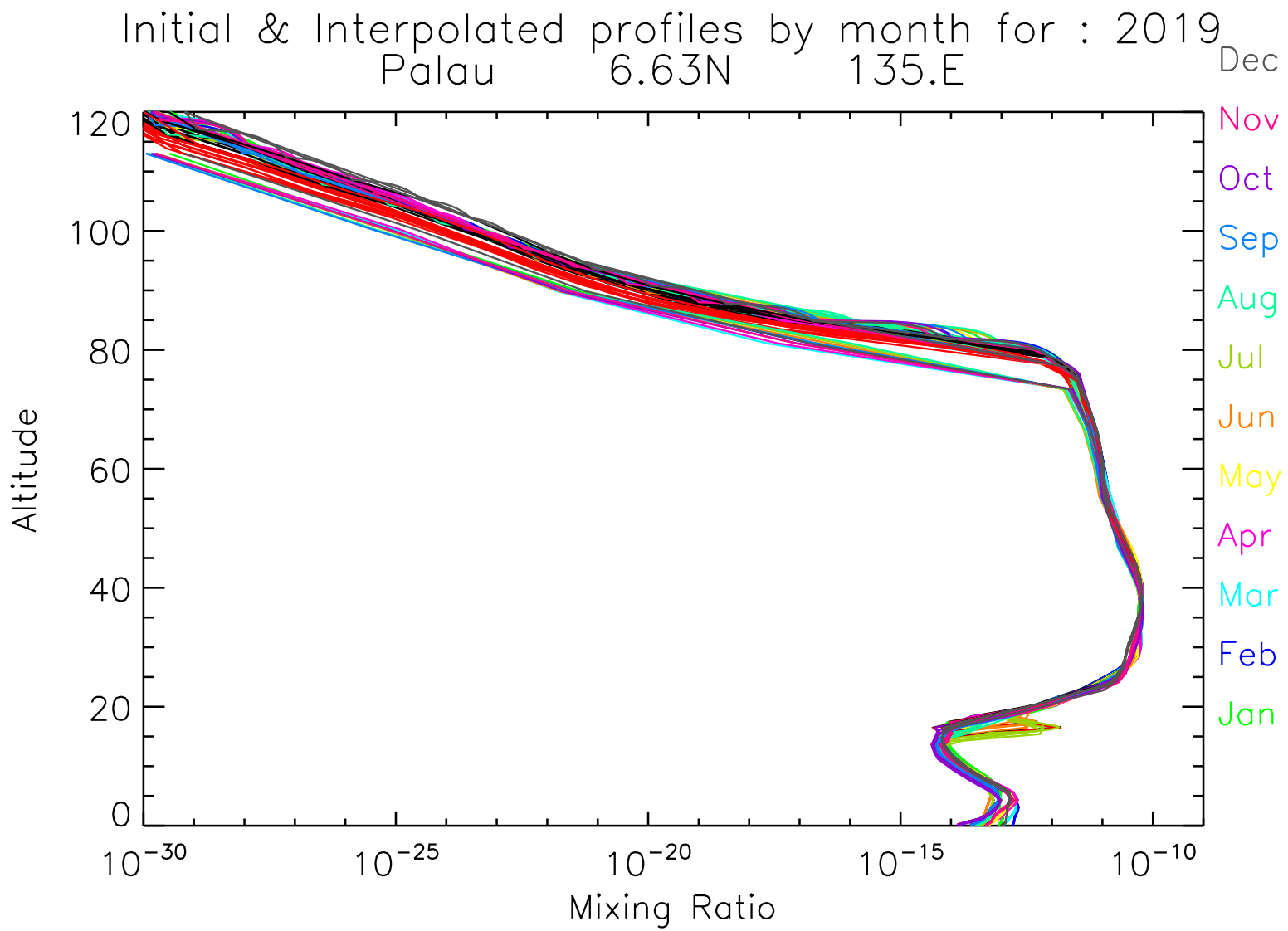

Initial & Interpolated profiles by month for : 2014
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

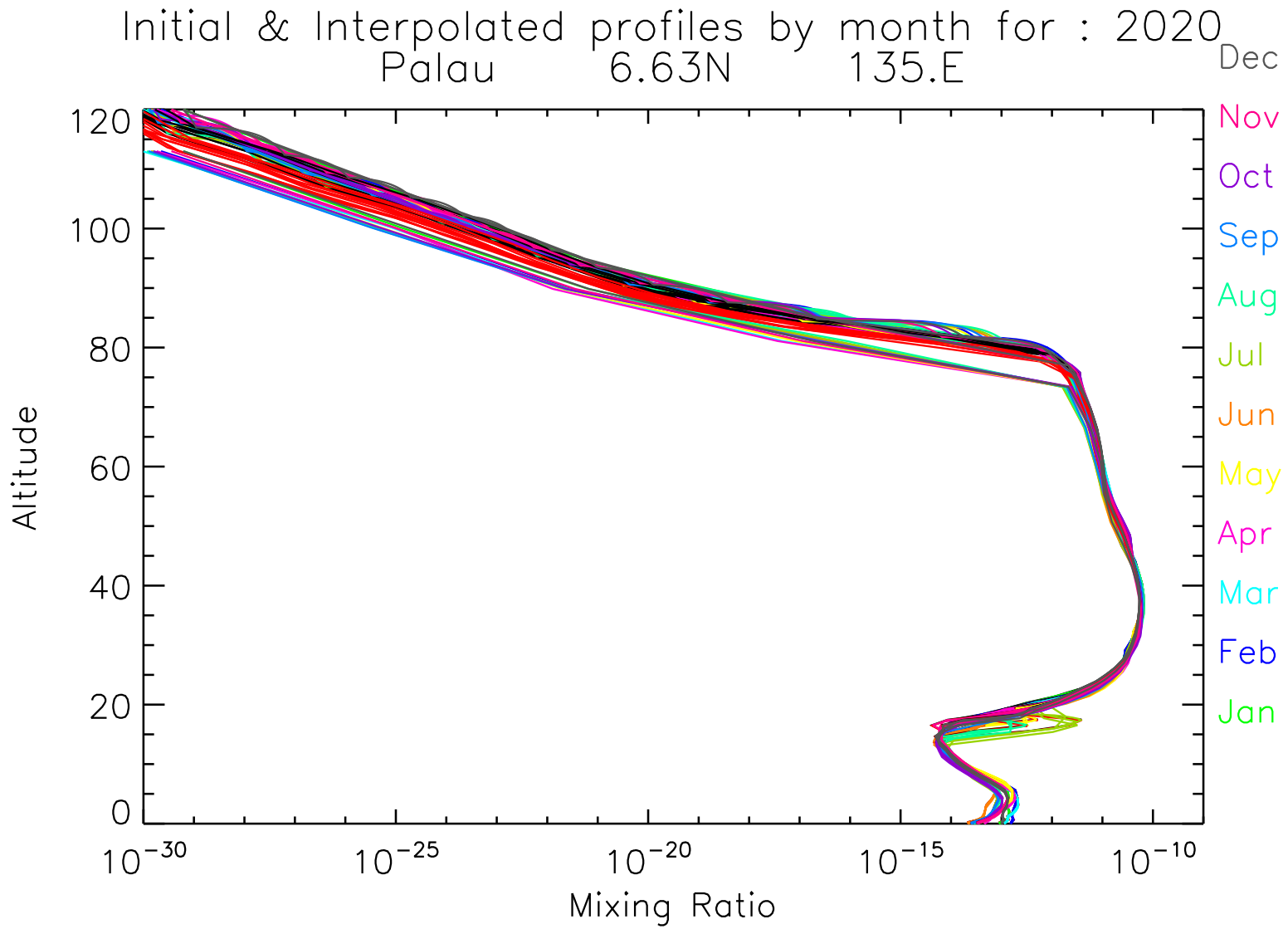

Initial & Interpolated profiles by month for : 2015
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

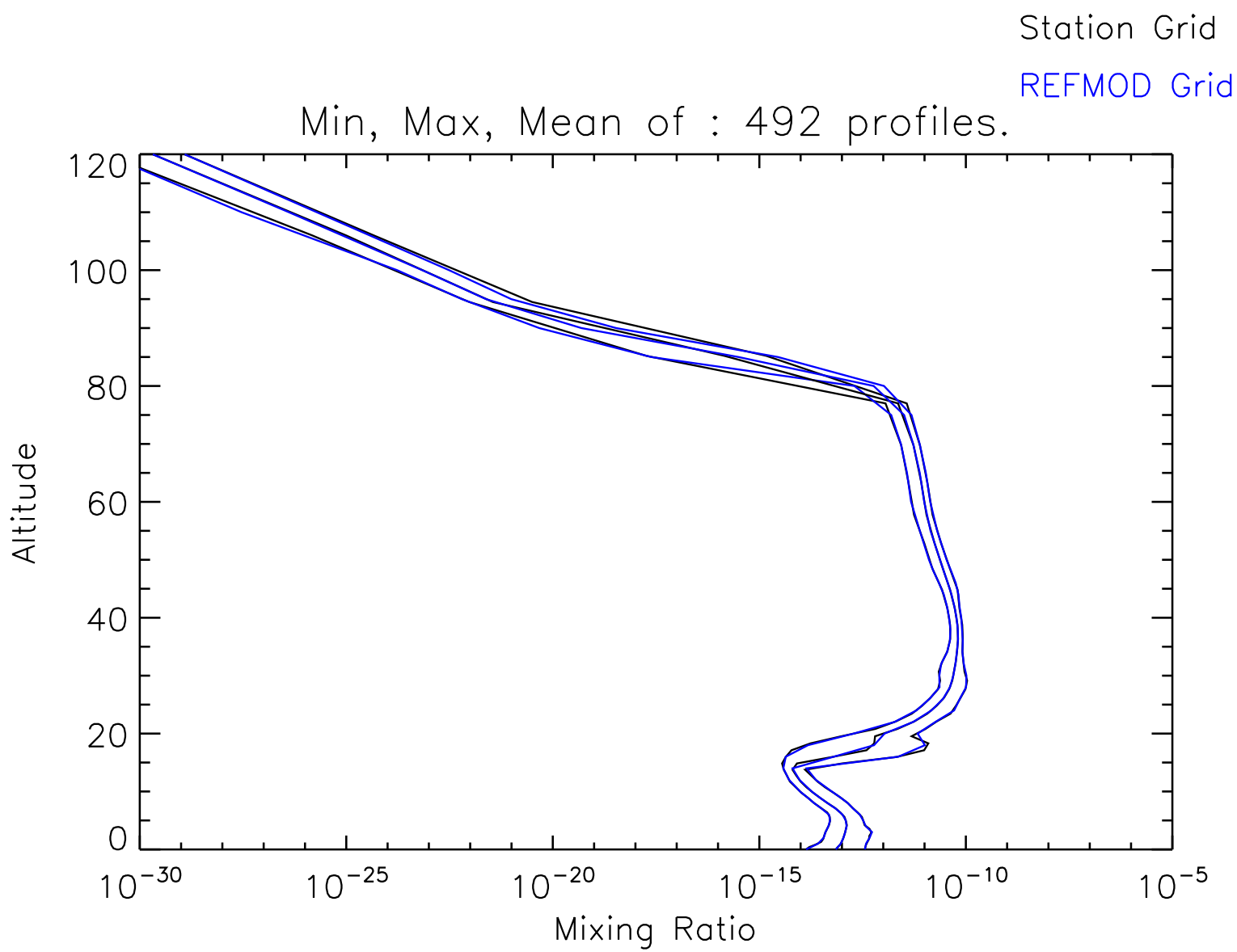

Initial & Interpolated profiles by month for : 2016
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

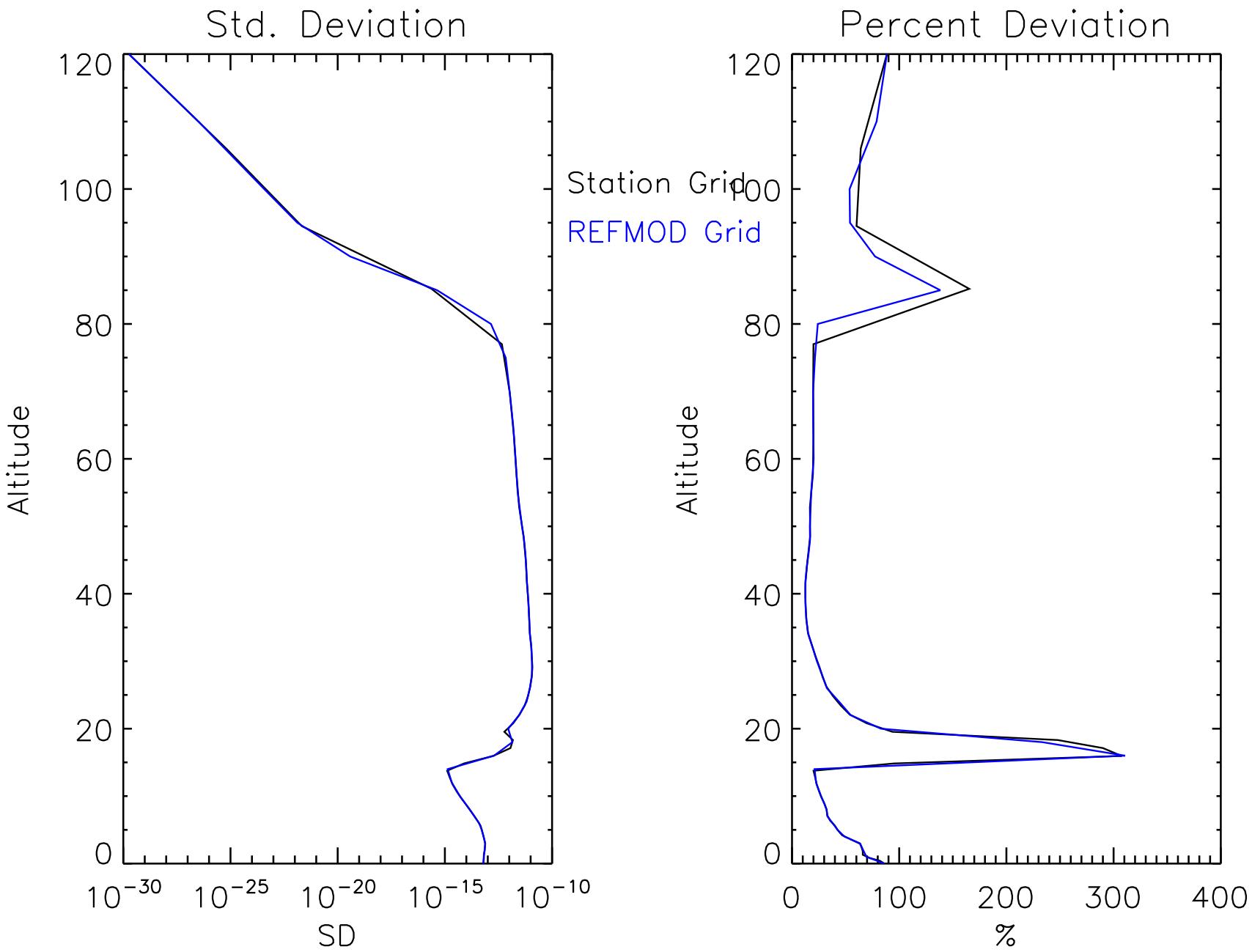

Initial & Interpolated profiles by month for : 2017
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

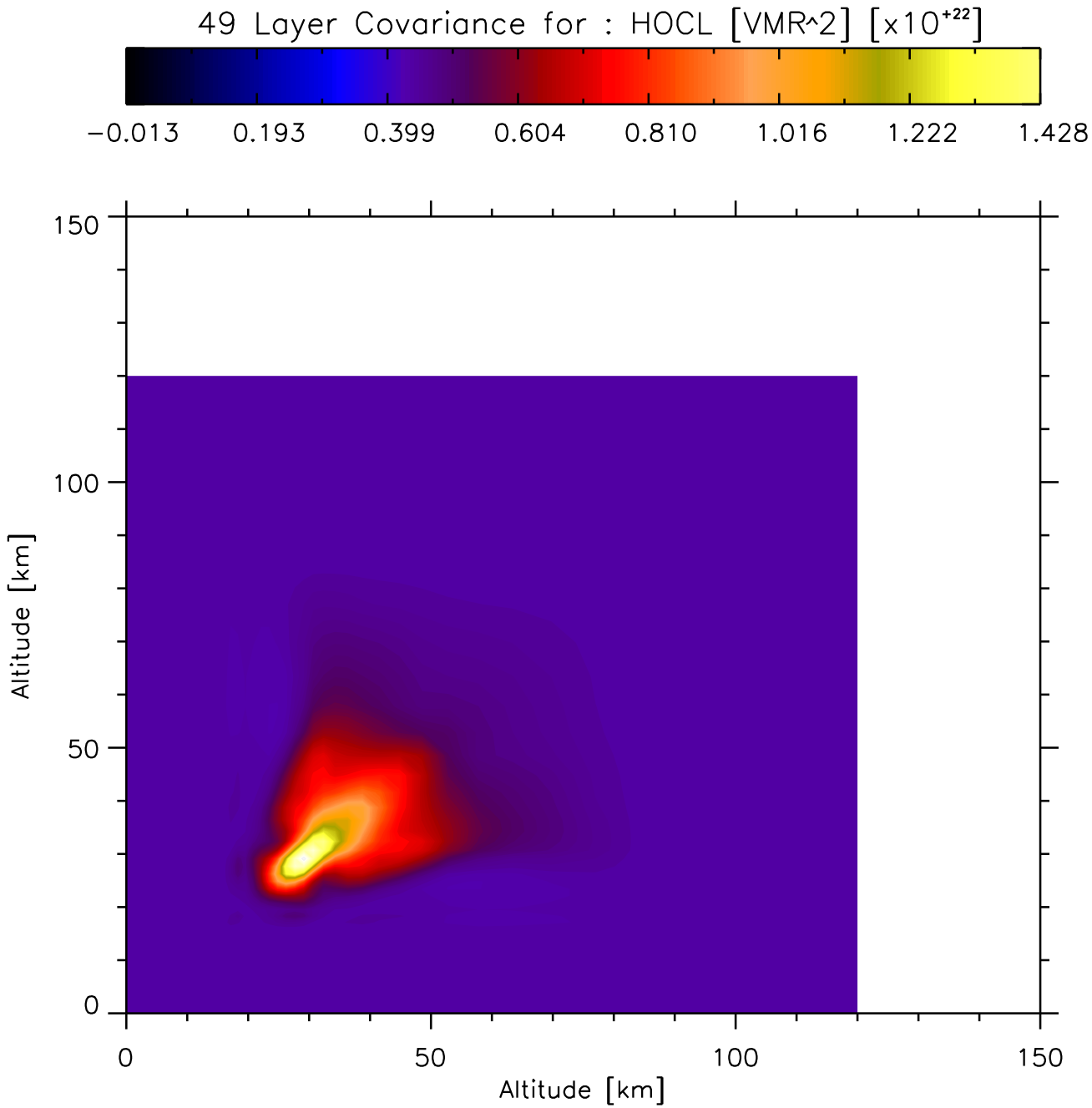

Initial & Interpolated profiles by month for : 2018
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
120
100
80
60
40
20
0
Altitude
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

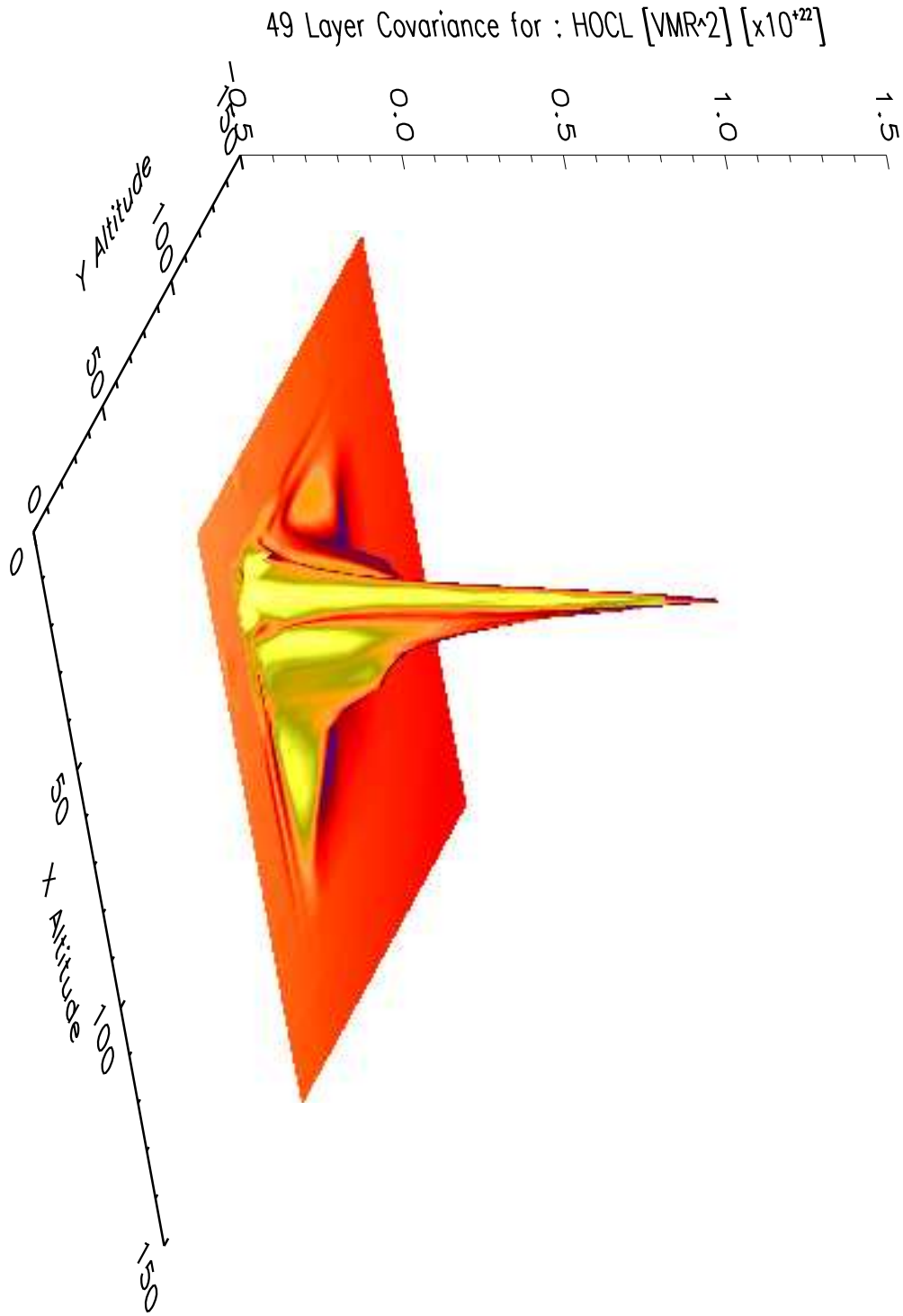

Initial & Interpolated profiles by month for : 2019
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

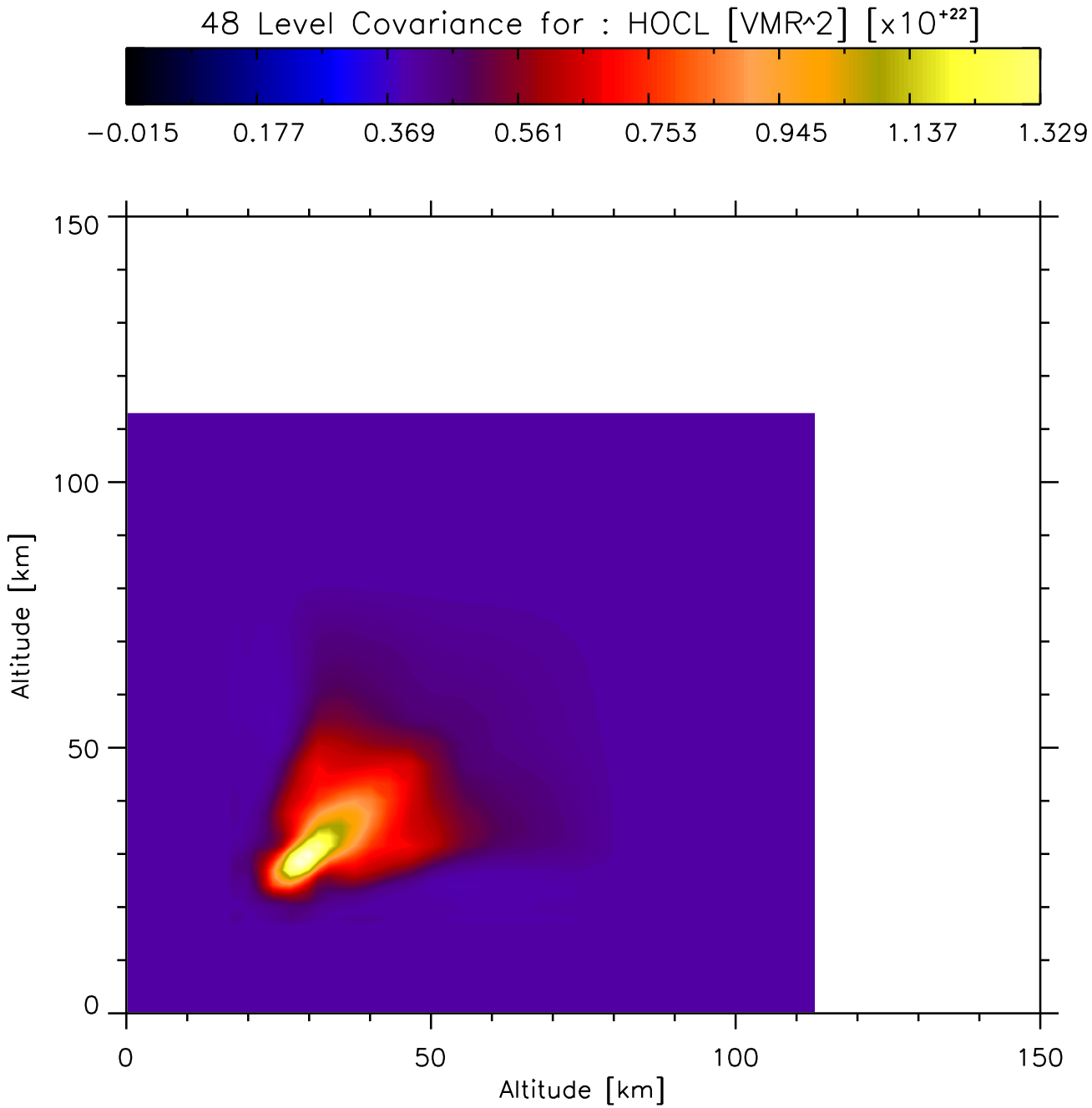

Initial & Interpolated profiles by month for : 2020
Palau 6.63N 135.E
Dec
Nov
Oct
Sep
Aug
Jul
Jun
May
Apr
Mar
Feb
Jan
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
Mixing Ratio

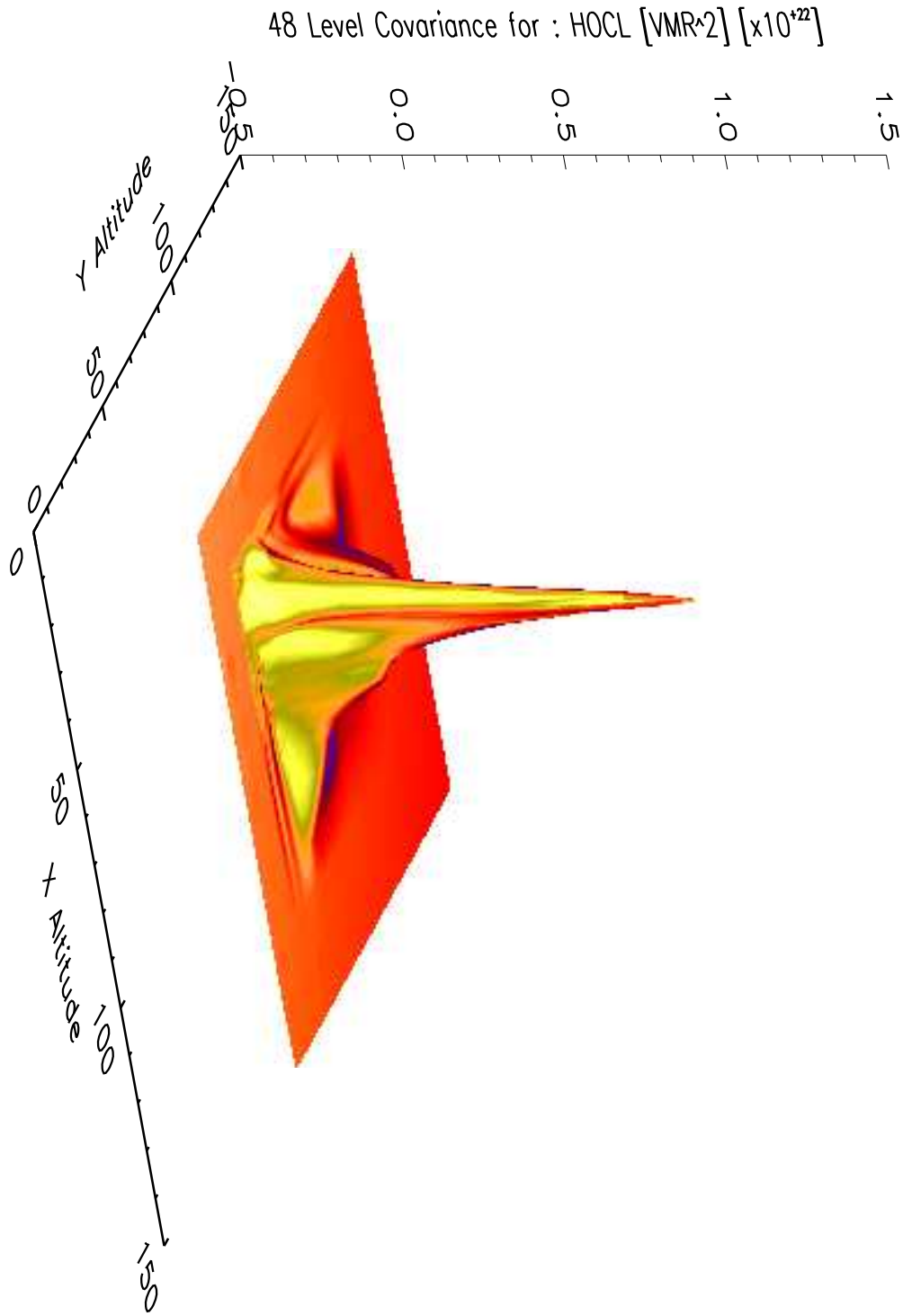

Station Grid
REFMOD Grid
Min, Max, Mean of : 492 profiles.
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
10^{-5}
Mixing Ratio


Std. Deviation
Percent Deviation
Station Grid
REFMOD Grid
Altitude
Altitude
120
100
80
60
40
20
0
10^{-30}
10^{-25}
10^{-20}
10^{-15}
10^{-10}
SD
0
100
200
300
400
%


49 Layer Covariance for : HOCL [VMR^2] [x10^+22]
−0.013
0.193
0.399
0.604
0.810
1.016
1.222
1.428
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


49 Layer Covariance for : HOCL [VMR^2] [x10^+22]
-0.5
0.0
0.5
1.0
1.5
Y Altitude
0
50
100
150
X Altitude
0
50
100
150


48 Level Covariance for : HOCL [VMR^2] [x10^+22]
−0.015
0.177
0.369
0.561
0.753
0.945
1.137
1.329
150
100
50
0
Altitude [km]
0
50
100
150
Altitude [km]


48 Level Covariance for : HOCL [VMR^2] [x10^+22]
-0.5
0.0
0.5
1.0
1.5
Y Altitude
0
50
100
150
X Altitude
0
50
100
150